



SEQUENCE LISTING

<110> Toshio Ota
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Tomoyasu Sugiyama
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Keiichi Nagai
Tetsuji Otsuki
Shin-Ichi Funahashi
Chiaki Senoo
Jun-Ichi Nezu

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<141> 2002-01-29

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		290				295					300				
Gln	Asn	Val	Phe	Ser	Thr	Thr	Val	Ser	Ser	Gly	Tyr	Asn	Thr	Lys	Lys
305					310					315					320
Ile	Gly	Lys	Arg	Leu	Asn	Ile	Gln	Leu	Lys	Lys	Gly	Thr	Glu	Gly	Leu
				325					330					335	
Gly	Phe	Ser	Ile	Thr	Ser	Arg	Asp	Val	Thr	Ile	Gly	Gly	Ser	Ala	Pro
			340					345					350		
Ile	Tyr	Val	Lys	Asn	Ile	Leu	Pro	Arg	Gly	Ala	Ala	Ile	Gln	Asp	Gly
		355					360					365			
Arg	Leu	Lys	Ala	Gly	Asp	Arg	Leu	Ile	Glu	Val	Asn	Gly	Val	Asp	Leu
		370				375					380				
Val	Gly	Lys	Ser	Gln	Glu	Glu	Val	Val	Ser	Leu	Leu	Arg	Ser	Thr	Lys
385					390					395					400
Met	Glu	Gly	Thr	Val	Ser	Leu	Leu	Val	Phe	Arg	Gln	Glu	Asp	Ala	Phe
				405					410					415	
His	Pro	Arg	Glu	Leu	Asn	Ala	Glu	Pro	Ser	Gln	Met	Gln	Ile	Pro	Lys
			420					425					430		
Glu	Thr	Lys	Ala	Glu	Asp	Glu	Asp	Ile	Val	Leu	Thr	Pro	Asp	Gly	Thr
		435					440					445			
Arg	Glu	Phe	Leu	Thr	Phe	Glu	Val	Pro	Leu	Ser	Asp	Ser	Gly	Ser	Ala
		450				455					460				
Gly	Leu	Gly	Val	Ser	Val	Lys	Gly	Asn	Arg	Ser	Lys	Glu	Asn	His	Ala
465					470					475					480
Asp	Leu	Gly	Ile	Phe	Val	Lys	Ser	Ile	Ile	Asn	Gly	Gly	Ala	Ala	Ser
				485					490					495	
Lys	Asp	Gly	Arg	Leu	Arg	Val	Asn	Asp	Gln	Leu	Ile	Ala	Val	Asn	Gly
			500					505					510		
Glu	Ser	Leu	Leu	Gly	Lys	Thr	Asn	Gln	Asp	Ala	Met	Glu	Thr	Leu	Arg
		515					520					525			
Arg	Ser	Met	Ser	Thr	Glu	Gly	Asn	Lys	Arg	Gly	Met	Ile	Gln	Leu	Ile
		530				535					540				
Val	Ala	Arg	Arg	Ile	Ser	Lys	Cys	Asn	Glu	Leu	Lys	Ser	Pro	Gly	Ser
545					550					555					560
Pro	Pro	Gly	Pro	Glu	Leu	Pro	Ile	Glu	Thr	Ala	Leu	Asp	Asp	Arg	Glu
				565					570					575	
Arg	Arg	Ile	Ser	His	Ser	Leu	Tyr	Ser	Gly	Ile	Glu	Gly	Leu	Asp	Glu
			580					585					590		
Ser	Pro	Ser	Arg	Asn	Ala	Ala	Leu	Ser	Arg	Ile	Met	Gly	Lys	Tyr	Gln
		595													

Pro Ser Arg Asp Val Gly Pro Ser Leu Gly Leu Lys Lys Ser Ser Ser
 705 710 715 720
 Leu Glu Ser Leu Gln Thr Ala Val Ala Glu Val Thr Leu Asn Gly Asp
 725 730 735
 Ile Pro Phe His Arg Pro Arg Pro Arg Ile Ile Arg Gly Arg Gly Cys
 740 745 750
 Asn Glu Ser Phe Arg Ala Ala Ile Asp Lys Ser Tyr Asp Lys Pro Ala
 755 760 765
 Val Asp Asp Asp Asp Glu Gly Met Glu Thr Leu Glu Glu Asp Thr Glu
 770 775 780
 Glu Ser Ser Arg Ser Gly Arg Glu Ser Val Ser Thr Ala Ser Asp Gln
 785 790 795 800
 Pro Ser His Ser Leu Glu Arg Gln Met Asn Gly Asn Gln Glu Lys Gly
 805 810 815
 Asp Lys Thr Asp Arg Lys Lys Asp Lys Thr Gly Lys Glu Lys Lys Lys
 820 825 830
 Asp Arg Asp Lys Glu Lys Asp Lys Met Lys Ala Lys Lys Gly Met Leu
 835 840 845
 Lys Gly Leu Gly Asp Met Phe Ser Leu Ala Lys Leu Lys Pro Glu Lys
 850 855 860
 Arg
 865

<210> 5
 <211> 30
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Artificially Synthesized Sequence

<400> 5
 agcaucgagu cggccuuguu ggccuacugg

30

<210> 6
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Artificially Synthesized Primer Sequence

<400> 6
 gcggctgaag acggcctatg tggccttttt tttttttttt tt

42

<210> 7
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Artificially Synthesized Primer Sequence

<400> 7
 agcatcgagt cggccttggt g

21

<210> 8

<211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Artificially Synthesized Primer Sequence

<400> 8
 gcggctgaag acggcctatg t

21

<210> 9
 <211> 433
 <212> PRT
 <213> Homo sapiens

<400> 9
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 Leu Met Ser Val Gly Met Asp Thr Phe Ile His Arg Ile Asp Ser Thr
 20 25 30
 Glu Val Ile Tyr Gln Pro Arg Arg Lys Arg Ala Lys Leu Ile Gly Lys
 35 40 45
 Tyr Leu Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys
 50 55 60
 Glu Val Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu
 65 70 75 80
 Lys Lys Lys Lys Leu Arg Arg Ile Pro Asn Gly Glu Ala Asn Val Lys
 85 90 95
 Lys Glu Ile Gln Leu Leu Arg Arg Leu Arg His Lys Asn Val Ile Gln
 100 105 110
 Leu Val Asp Val Leu Tyr Asn Glu Glu Lys Gln Lys Met Tyr Met Val
 115 120 125
 Met Glu Tyr Cys Val Cys Gly Met Gln Glu Met Leu Asp Ser Val Pro
 130 135 140
 Glu Lys Arg Phe Pro Val Cys Gln Ala His Gly Tyr Phe Cys Gln Leu
 145 150 155 160
 Ile Asp Gly Leu Glu Tyr Leu His Ser Gln Gly Ile Val His Lys Asp
 165 170 175
 Ile Lys Pro Gly Asn Leu Leu Leu Thr Thr Gly Gly Thr Leu Lys Ile
 180 185 190
 Ser Asp Leu Gly Val Ala Glu Ala Leu His Pro Phe Ala Ala Asp Asp
 195 200 205
 Thr Cys Arg Thr Ser Gln Gly Ser Pro Ala Phe Gln Pro Pro Glu Ile
 210 215 220
 Ala Asn Gly Leu Asp Thr Phe Ser Gly Phe Lys Val Asp Ile Trp Ser
 225 230 235 240
 Ala Gly Val Thr Leu Tyr Asn Ile Thr Thr Gly Leu Tyr Pro Phe Glu
 245 250 255
 Gly Asp Asn Ile Tyr Lys Leu Phe Glu Asn Ile Gly Lys Gly Ser Tyr
 260 265 270
 Ala Ile Pro Gly Asp Cys Gly Pro Pro Leu Ser Asp Leu Leu Lys Gly
 275 280 285
 Met Leu Glu Tyr Glu Pro Ala Lys Arg Phe Ser Ile Arg Gln Ile Arg
 290 295 300
 Gln His Ser Trp Phe Arg Lys Lys His Pro Pro Ala Glu Ala Pro Val
 305 310 315 320
 Pro Ile Pro Pro Ser Pro Asp Thr Lys Asp Arg Trp Arg Ser Met Thr

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          325          330          335
Val Val Pro Tyr Leu Glu Asp Leu His Gly Ala Asp Glu Asp Glu Asp
          340          345          350
Leu Phe Asp Ile Glu Asp Asp Ile Ile Tyr Thr Gln Asp Phe Thr Val
          355          360          365
Pro Gly Gln Val Pro Glu Glu Glu Ala Ser His Asn Gly Gln Arg Arg
          370          375          380
Gly Leu Pro Lys Ala Val Cys Met Asn Gly Thr Glu Ala Ala Gln Leu
385          390          395          400
Ser Thr Lys Ser Arg Ala Glu Gly Arg Ala Pro Asn Pro Ala Arg Lys
          405          410          415
Ala Cys Ser Ala Ser Ser Lys Ile Arg Arg Leu Ser Ala Cys Lys Gln
          420          425          430
Gln

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<210> 10
<211> 396
<212> PRT
<213> Homo sapiens

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<400> 10
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 1          5          10          15
Arg His Leu Ala Glu Gln Phe Ala Val Gly Glu Ile Ile Thr Asp Met
          20          25          30
Ala Lys Lys Glu Trp Lys Val Gly Leu Pro Ile Gly Gln Gly Gly Phe
          35          40          45
Gly Cys Ile Tyr Leu Ala Asp Met Asn Ser Ser Glu Ser Val Gly Ser
          50          55          60
Asp Ala Pro Cys Val Val Lys Val Glu Pro Ser Asp Asn Gly Pro Leu
          65          70          75          80
Phe Thr Glu Leu Lys Phe Tyr Gln Arg Ala Ala Lys Pro Glu Gln Ile
          85          90          95
Gln Lys Trp Ile Arg Thr Arg Lys Leu Lys Tyr Leu Gly Val Pro Lys
          100          105          110
Tyr Trp Gly Ser Gly Leu His Asp Lys Asn Gly Lys Ser Tyr Arg Phe
          115          120          125
Met Ile Met Asp Arg Phe Gly Ser Asp Leu Gln Lys Ile Tyr Glu Ala
          130          135          140
Asn Ala Lys Arg Phe Ser Arg Lys Thr Val Leu Gln Leu Ser Leu Arg
          145          150          155          160
Ile Leu Asp Ile Leu Glu Tyr Ile His Glu His Glu Tyr Val His Gly
          165          170          175
Asp Ile Lys Ala Ser Asn Leu Leu Leu Asn Tyr Lys Asn Pro Asp Gln
          180          185          190
Val Tyr Leu Val Asp Tyr Gly Leu Ala Tyr Arg Tyr Cys Pro Glu Gly
          195          200          205
Val His Lys Glu Tyr Lys Glu Asp Pro Lys Arg Cys His Asp Gly Thr
          210          215          220
Ile Glu Phe Thr Ser Ile Asp Ala His Asn Gly Val Ala Pro Ser Arg
          225          230          235          240
Arg Gly Asp Leu Glu Ile Leu Gly Tyr Cys Met Ile Gln Trp Leu Thr
          245          250          255
Gly His Leu Pro Trp Glu Asp Asn Leu Lys Asp Pro Lys Tyr Val Arg
          260          265          270
Asp Ser Lys Ile Arg Tyr Arg Glu Asn Ile Ala Ser Leu Met Asp Lys

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		275					280					285			
Cys	Phe	Pro	Glu	Lys	Asn	Lys	Pro	Gly	Glu	Ile	Ala	Lys	Tyr	Met	Glu
	290					295					300				
Thr	Val	Lys	Leu	Leu	Asp	Tyr	Thr	Glu	Lys	Pro	Leu	Tyr	Glu	Asn	Leu
305					310					315					320
Arg	Asp	Ile	Leu	Leu	Gln	Gly	Leu	Lys	Ala	Ile	Gly	Ser	Lys	Asp	Asp
				325					330					335	
Gly	Lys	Leu	Asp	Leu	Ser	Val	Val	Glu	Asn	Gly	Gly	Leu	Lys	Ala	Lys
			340					345					350		
Thr	Ile	Thr	Lys	Lys	Arg	Lys	Lys	Glu	Ile	Glu	Glu	Ser	Lys	Glu	Pro
		355					360					365			
Gly	Val	Glu	Asp	Thr	Glu	Trp	Ser	Asn	Thr	Gln	Thr	Glu	Glu	Ala	Ile
	370					375				380					
Gln	Thr	Arg	Ser	Arg	Thr	Arg	Lys	Arg	Val	Gln	Lys				
385					390					395					

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<210> 11
<211> 297
<212> PRT
<213> Homo sapiens
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<400>	11														
Met	Glu	Asp	Tyr	Thr	Lys	Ile	Glu	Lys	Ile	Gly	Glu	Gly	Thr	Tyr	Gly
1				5					10					15	
Val	Val	Tyr	Lys	Gly	Arg	His	Lys	Thr	Thr	Gly	Gln	Val	Val	Ala	Met
			20					25					30		
Lys	Lys	Ile	Arg	Leu	Glu	Ser	Glu	Glu	Glu	Gly	Val	Pro	Ser	Thr	Ala
		35				40						45			
Ile	Arg	Glu	Ile	Ser	Leu	Leu	Lys	Glu	Leu	Arg	His	Pro	Asn	Ile	Val
	50				55					60					
Ser	Leu	Gln	Asp	Val	Leu	Met	Gln	Asp	Ser	Arg	Leu	Tyr	Leu	Ile	Phe
65				70				75							80
Glu	Phe	Leu	Ser	Met	Asp	Leu	Lys	Lys	Tyr	Leu	Asp	Ser	Ile	Pro	Pro
				85				90						95	
Gly	Gln	Tyr	Met	Asp	Ser	Ser	Leu	Val	Lys	Ser	Tyr	Leu	Tyr	Gln	Ile
			100					105					110		
Leu	Gln	Gly	Ile	Val	Phe	Cys	His	Ser	Arg	Arg	Val	Leu	His	Arg	Asp
		115				120					125				
Leu	Lys	Pro	Gln	Asn	Leu	Leu	Ile	Asp	Asp	Lys	Gly	Thr	Ile	Lys	Leu
	130				135						140				
Ala	Asp	Phe	Gly	Leu	Ala	Arg	Ala	Phe	Gly	Ile	Pro	Ile	Arg	Val	Tyr
145				150					155						160
Thr	His	Glu	Val	Val	Thr	Leu	Trp	Tyr	Arg	Ser	Pro	Glu	Val	Leu	Leu
				165				170						175	
Gly	Ser	Ala	Arg	Tyr	Ser	Thr	Pro	Val	Asp	Ile	Trp	Ser	Ile	Gly	Thr
			180					185					190		
Ile	Phe	Ala	Glu	Leu	Ala	Thr	Lys	Lys	Pro	Leu	Phe	His	Gly	Asp	Ser
		195				200						205			
Glu	Ile	Asp	Gln	Leu	Phe	Arg	Ile	Phe	Arg	Ala	Leu	Gly	Thr	Pro	Asn
	210				215					220					
Asn	Glu	Val	Trp	Pro	Glu	Val	Glu	Ser	Leu	Gln	Asp	Tyr	Lys	Asn	Thr
225				230					235					240	
Phe	Pro	Lys	Trp	Lys	Pro	Gly	Ser	Leu	Ala	Ser	His	Val	Lys	Asn	Leu
				245				250						255	
Asp	Glu	Asn	Gly	Leu	Asp	Leu	Leu	Ser	Lys	Met	Leu	Ile	Tyr	Asp	Pro
			260				265						270		
Ala	Lys	Arg	Ile	Ser	Gly	Lys	Met	Ala	Leu	Asn	His	Pro	Tyr	Phe	Asn

275 280 285
 Asp Leu Asp Asn Gln Ile Lys Lys Met
 290 295

<210> 12
 <211> 403
 <212> PRT
 <213> Homo sapiens

<400> 12

Met	Asp	Arg	Ser	Lys	Glu	Asn	Cys	Ile	Ser	Gly	Pro	Val	Lys	Ala	Thr
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Ala	Pro	Val	Gly	Gly	Pro	Lys	Arg	Val	Leu	Val	Thr	Gln	Gln	Phe	Pro
			20					25					30		
Cys	Gln	Asn	Pro	Leu	Pro	Val	Asn	Ser	Gly	Gln	Ala	Gln	Arg	Val	Leu
		35					40				45				
Cys	Pro	Ser	Asn	Ser	Ser	Gln	Arg	Ile	Pro	Leu	Gln	Ala	Gln	Lys	Leu
	50					55				60					
Val	Ser	Ser	His	Lys	Pro	Val	Gln	Asn	Gln	Lys	Gln	Lys	Gln	Leu	Gln
65					70				75					80	
Ala	Thr	Ser	Val	Pro	His	Pro	Val	Ser	Arg	Pro	Leu	Asn	Asn	Thr	Gln
				85				90						95	
Lys	Ser	Lys	Gln	Pro	Leu	Pro	Ser	Ala	Pro	Glu	Asn	Asn	Pro	Glu	Glu
		100						105					110		
Glu	Leu	Ala	Ser	Lys	Gln	Lys	Asn	Glu	Glu	Ser	Lys	Lys	Arg	Gln	Trp
		115					120				125				
Ala	Leu	Glu	Asp	Phe	Glu	Ile	Gly	Arg	Pro	Leu	Gly	Lys	Gly	Lys	Phe
	130					135					140				
Gly	Asn	Val	Tyr	Leu	Ala	Arg	Glu	Lys	Gln	Ser	Lys	Phe	Ile	Leu	Ala
145				150					155					160	
Leu	Lys	Val	Leu	Phe	Lys	Ala	Gln	Leu	Glu	Lys	Ala	Gly	Val	Glu	His
			165					170					175		
Gln	Leu	Arg	Arg	Glu	Val	Glu	Ile	Gln	Ser	His	Leu	Arg	His	Pro	Asn
		180						185					190		
Ile	Leu	Arg	Leu	Tyr	Gly	Tyr	Phe	His	Asp	Ala	Thr	Arg	Val	Tyr	Leu
	195					200						205			
Ile	Leu	Glu	Tyr	Ala	Pro	Leu	Gly	Thr	Val	Tyr	Arg	Glu	Leu	Gln	Lys
	210					215					220				
Leu	Ser	Lys	Phe	Asp	Glu	Gln	Arg	Thr	Ala	Thr	Tyr	Ile	Thr	Glu	Leu
225				230					235					240	
Ala	Asn	Ala	Leu	Ser	Tyr	Cys	His	Ser	Lys	Arg	Val	Ile	His	Arg	Asp
			245					250						255	
Ile	Lys	Pro	Glu	Asn	Leu	Leu	Leu	Gly	Ser	Ala	Gly	Glu	Leu	Lys	Ile
		260						265					270		
Ala	Asp	Phe	Gly	Trp	Ser	Val	His	Ala	Pro	Ser	Ser	Arg	Arg	Thr	Thr
	275					280						285			
Leu	Cys	Gly	Thr	Leu	Asp	Tyr	Leu	Pro	Pro	Glu	Met	Ile	Glu	Gly	Arg
	290				295					300					
Met	His	Asp	Glu	Lys	Val	Asp	Leu	Trp	Ser	Leu	Gly	Val	Leu	Cys	Tyr
305					310					315				320	
Glu	Phe	Leu	Val	Gly	Lys	Pro	Pro	Phe	Glu	Ala	Asn	Thr	Tyr	Gln	Glu
			325					330						335	
Thr	Tyr	Lys	Arg	Ile	Ser	Arg	Val	Glu	Phe	Thr	Phe	Pro	Asp	Phe	Val
		340						345					350		
Thr	Glu	Gly	Ala	Arg	Asp	Leu	Ile	Ser	Arg	Leu	Leu	Lys	His	Asn	Pro
	355					360						365			
Ser	Gln	Arg	Pro	Met	Leu	Arg	Glu	Val	Leu	Glu	His	Pro	Trp	Ile	Thr

370 375 380
Ala Asn Ser Ser Lys Pro Ser Asn Cys Gln Asn Lys Glu Ser Ala Ser
385 390 395 400
Lys Gln Ser

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<210> 13
<211> 344
<212> PRT
<213> Homo sapiens
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[illegible]

<210> 14
 <211> 745
 <212> PRT
 <213> Homo sapiens

<400> 14

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Met	Arg	Glu	Arg	Leu	Gly	Thr	Gly	Gly	Phe	Gly	Asn	Val	Cys	Leu	Tyr
			20					25					30		
Gln	His	Arg	Glu	Leu	Asp	Leu	Lys	Ile	Ala	Ile	Lys	Ser	Cys	Arg	Leu
			35				40					45			
Glu	Leu	Ser	Thr	Lys	Asn	Arg	Glu	Arg	Trp	Cys	His	Glu	Ile	Gln	Ile
	50					55					60				
Met	Lys	Lys	Leu	Asn	His	Ala	Asn	Val	Val	Lys	Ala	Cys	Asp	Val	Pro
65					70					75					80
Glu	Glu	Leu	Asn	Ile	Leu	Ile	His	Asp	Val	Pro	Leu	Leu	Ala	Met	Glu
				85					90					95	
Tyr	Cys	Ser	Gly	Gly	Asp	Leu	Arg	Lys	Leu	Leu	Asn	Lys	Pro	Glu	Asn
			100					105					110		
Cys	Cys	Gly	Leu	Lys	Glu	Ser	Gln	Ile	Leu	Ser	Leu	Leu	Ser	Asp	Ile
		115					120					125			
Gly	Ser	Gly	Ile	Arg	Tyr	Leu	His	Glu	Asn	Lys	Ile	Ile	His	Arg	Asp
	130					135					140				
Leu	Lys	Pro	Glu	Asn	Ile	Val	Leu	Gln	Asp	Val	Gly	Gly	Lys	Ile	Ile
145					150					155					160
His	Lys	Ile	Ile	Asp	Leu	Gly	Tyr	Ala	Lys	Asp	Val	Asp	Gln	Gly	Ser
				165					170					175	
Leu	Cys	Thr	Ser	Phe	Val	Gly	Thr	Leu	Gln	Tyr	Leu	Ala	Pro	Glu	Leu
			180					185					190		
Phe	Glu	Asn	Lys	Pro	Tyr	Thr	Ala	Thr	Val	Asp	Tyr	Trp	Ser	Phe	Gly
		195					200					205			
Thr	Met	Val	Phe	Glu	Cys	Ile	Ala	Gly	Tyr	Arg	Pro	Phe	Leu	His	His
	210					215					220				
Leu	Gln	Pro	Phe	Thr	Trp	His	Glu	Lys	Ile	Lys	Lys	Lys	Asp	Pro	Lys
225					230					235					240
Cys	Ile	Phe	Ala	Cys	Glu	Glu	Met	Ser	Gly	Glu	Val	Arg	Phe	Ser	Ser
				245					250					255	
His	Leu	Pro	Gln	Pro	Asn	Ser	Leu	Cys	Ser	Leu	Ile	Val	Glu	Pro	Met
			260					265					270		
Glu	Asn	Trp	Leu	Gln	Leu	Met	Leu	Asn	Trp	Asp	Pro	Gln	Gln	Arg	Gly
		275					280					285			
Gly	Pro	Val	Asp	Leu	Thr	Leu	Lys	Gln	Pro	Arg	Cys	Phe	Val	Leu	Met
	290					295					300				
Asp	His	Ile	Leu	Asn	Leu	Lys	Ile	Val	His	Ile	Leu	Asn	Met	Thr	Ser
305					310					315					320
Ala	Lys	Ile	Ile	Ser	Phe	Leu	Leu	Pro	Pro	Asp	Glu	Ser	Leu	His	Ser
				325					330					335	
Leu	Gln	Ser	Arg	Ile	Glu	Arg	Glu	Thr	Gly	Ile	Asn	Thr	Gly	Ser	Gln
			340					345					350		
Glu	Leu	Leu	Ser	Glu	Thr	Gly	Ile	Ser	Leu	Asp	Pro	Arg	Lys	Pro	Ala
		355					360					365			
Ser	Gln	Cys	Val	Leu	Asp	Gly	Val	Arg	Gly	Cys	Asp	Ser	Tyr	Met	Val
	370					375					380				
Tyr	Leu	Phe	Asp	Lys	Ser	Lys	Thr	Val	Tyr	Glu	Gly	Pro	Phe	Ala	Ser
385					390					395					400
Arg	Ser	Leu	Ser	Asp	Cys	Val	Asn	Tyr	Ile	Val	Gln	Asp	Ser	Lys	Ile

				405				410				415			
Gln	Leu	Pro	Ile	Ile	Gln	Leu	Arg	Lys	Val	Trp	Ala	Glu	Ala	Val	His
				420				425				430			
Tyr	Val	Ser	Gly	Leu	Lys	Glu	Asp	Tyr	Ser	Arg	Leu	Phe	Gln	Gly	Gln
				435				440				445			
Arg	Ala	Ala	Met	Leu	Ser	Leu	Leu	Arg	Tyr	Asn	Ala	Asn	Leu	Thr	Lys
				450				455				460			
Met	Lys	Asn	Thr	Leu	Ile	Ser	Ala	Ser	Gln	Gln	Leu	Lys	Ala	Lys	Leu
465				470				475				480			
Glu	Phe	Phe	His	Lys	Ser	Ile	Gln	Leu	Asp	Leu	Glu	Arg	Tyr	Ser	Glu
				485				490				495			
Gln	Met	Thr	Tyr	Gly	Ile	Ser	Ser	Glu	Lys	Met	Leu	Lys	Ala	Trp	Lys
				500				505				510			
Glu	Met	Glu	Glu	Lys	Ala	Ile	His	Tyr	Ala	Glu	Val	Gly	Val	Ile	Gly
				515				520				525			
Tyr	Leu	Glu	Asp	Gln	Ile	Met	Ser	Leu	His	Ala	Glu	Ile	Met	Glu	Leu
				530				535				540			
Gln	Lys	Ser	Pro	Tyr	Gly	Arg	Arg	Gln	Gly	Asp	Leu	Met	Glu	Ser	Leu
545				550				555				560			
Glu	Gln	Arg	Ala	Ile	Asp	Leu	Tyr	Lys	Gln	Leu	Lys	His	Arg	Pro	Ser
				565				570				575			
Asp	His	Ser	Tyr	Ser	Asp	Ser	Thr	Glu	Met	Val	Lys	Ile	Ile	Val	His
				580				585				590			
Thr	Val	Gln	Ser	Gln	Asp	Arg	Val	Leu	Lys	Glu	Leu	Phe	Gly	His	Leu
				595				600				605			
Ser	Lys	Leu	Leu	Gly	Cys	Lys	Gln	Lys	Ile	Ile	Asp	Leu	Leu	Pro	Lys
				610				615				620			
Val	Glu	Val	Ala	Leu	Ser	Asn	Ile	Lys	Glu	Ala	Asp	Asn	Thr	Val	Met
625				630				635				640			
Phe	Met	Gln	Gly	Lys	Arg	Gln	Lys	Glu	Ile	Trp	His	Leu	Leu	Lys	Ile
				645				650				655			
Ala	Cys	Thr	Gln	Ser	Ser	Ala	Arg	Ser	Leu	Val	Gly	Ser	Ser	Leu	Glu
				660				665				670			
Gly	Ala	Val	Thr	Pro	Gln	Thr	Ser	Ala	Trp	Leu	Pro	Pro	Thr	Ser	Ala
				675				680				685			
Glu	His	Asp	His	Ser	Leu	Ser	Cys	Val	Val	Thr	Pro	Gln	Asp	Gly	Glu
				690				695				700			
Thr	Ser	Ala	Gln	Met	Ile	Glu	Glu	Asn	Leu	Asn	Cys	Leu	Gly	His	Leu
705				710				715				720			
Ser	Thr	Ile	Ile	His	Glu	Ala	Asn	Glu	Glu	Gln	Gly	Asn	Ser	Met	Met
				725				730				735			
Asn	Leu	Asp	Trp	Ser	Trp	Leu	Thr	Glu							
				740				745							

<210> 15

<211> 318

<212> PRT

<213> Homo sapiens

<400> 15

Met	Ser	Lys	Pro	Pro	Ala	Pro	Asn	Pro	Thr	Pro	Pro	Arg	Asn	Leu	Asp
1				5					10					15	
Ser	Arg	Thr	Phe	Ile	Thr	Ile	Gly	Asp	Arg	Asn	Phe	Glu	Val	Glu	Ala
			20					25					30		
Asp	Asp	Leu	Val	Thr	Ile	Ser	Glu	Leu	Gly	Arg	Gly	Ala	Tyr	Gly	Val
		35					40					45			
Val	Glu	Lys	Val	Arg	His	Ala	Gln	Ser	Gly	Thr	Ile	Met	Ala	Val	Lys

50	55	60																	
Arg	Ile	Arg	Ala	Thr	Val	Asn	Ser	Gln	Glu	Gln	Lys	Arg	Leu	Leu	Met				
65					70					75					80				
Asp	Leu	Asp	Ile	Asn	Met	Arg	Thr	Val	Asp	Cys	Phe	Tyr	Thr	Val	Thr				
				85						90					95				
Phe	Tyr	Gly	Ala	Leu	Phe	Arg	Glu	Gly	Asp	Val	Trp	Ile	Cys	Met	Glu				
			100					105					110						
Leu	Met	Asp	Thr	Ser	Leu	Asp	Lys	Phe	Tyr	Arg	Lys	Val	Leu	Asp	Lys				
		115					120					125							
Asn	Met	Thr	Ile	Pro	Glu	Asp	Ile	Leu	Gly	Glu	Ile	Ala	Val	Ser	Ile				
	130					135					140								
Val	Arg	Ala	Leu	Glu	His	Leu	His	Ser	Lys	Leu	Ser	Val	Ile	His	Arg				
145					150					155					160				
Asp	Val	Lys	Pro	Ser	Asn	Val	Leu	Ile	Asn	Lys	Glu	Gly	His	Val	Lys				
				165					170					175					
Met	Cys	Asp	Phe	Gly	Ile	Ser	Gly	Tyr	Leu	Val	Asp	Ser	Val	Ala	Lys				
		180					185					190							
Thr	Met	Asp	Ala	Gly	Cys	Lys	Pro	Tyr	Met	Ala	Pro	Glu	Arg	Ile	Asn				
	195						200				205								
Pro	Glu	Leu	Asn	Gln	Lys	Gly	Tyr	Asn	Val	Lys	Ser	Asp	Val	Trp	Ser				
	210					215					220								
Leu	Gly	Ile	Thr	Met	Ile	Glu	Met	Ala	Ile	Leu	Arg	Phe	Pro	Tyr	Glu				
225					230					235					240				
Ser	Trp	Gly	Thr	Pro	Phe	Gln	Gln	Leu	Lys	Gln	Val	Val	Glu	Glu	Pro				
				245					250					255					
Ser	Pro	Gln	Leu	Pro	Ala	Asp	Arg	Phe	Ser	Pro	Glu	Phe	Val	Asp	Phe				
		260					265						270						
Thr	Ala	Gln	Cys	Leu	Arg	Lys	Asn	Pro	Ala	Glu	Arg	Met	Ser	Tyr	Leu				
	275						280					285							
Glu	Leu	Met	Glu	His	Pro	Phe	Phe	Thr	Leu	His	Lys	Thr	Lys	Lys	Thr				
	290					295					300								
Asp	Ile	Ala	Ala	Phe	Val	Lys	Lys	Ile	Leu	Gly	Glu	Asp	Ser						
305					310					315									

<210> 16

<211> 379

<212> PRT

<213> Homo sapiens

<400> 16

Met	Ala	Ala	Ala	Ala	Ala	Gln	Gly	Gly	Gly	Gly	Gly	Glu	Pro	Arg	Arg				
1				5					10					15					
Thr	Glu	Gly	Val	Gly	Pro	Gly	Val	Pro	Gly	Glu	Val	Glu	Met	Val	Lys				
			20					25					30						
Gly	Gln	Pro	Phe	Asp	Val	Gly	Pro	Arg	Tyr	Thr	Gln	Leu	Gln	Tyr	Ile				
		35				40					45								
Gly	Glu	Gly	Ala	Tyr	Gly	Met	Val	Ser	Ser	Ala	Tyr	Asp	His	Val	Arg				
	50					55				60									
Lys	Thr	Arg	Val	Ala	Ile	Lys	Lys	Ile	Ser	Pro	Phe	Glu	His	Gln	Thr				
	65				70				75						80				
Tyr	Cys	Gln	Arg	Thr	Leu	Arg	Glu	Ile	Gln	Ile	Leu	Leu	Arg	Phe	Arg				
				85				90						95					
His	Glu	Asn	Val	Ile	Gly	Ile	Arg	Asp	Ile	Leu	Arg	Ala	Ser	Thr	Leu				
		100					105					110							
Glu	Ala	Met	Arg	Asp	Val	Tyr	Ile	Val	Gln	Asp	Leu	Met	Glu	Thr	Asp				
		115					120					125							
Leu	Tyr	Lys	Leu	Leu	Lys	Ser	Gln	Gln	Leu	Ser	Asn	Asp	His	Ile	Cys				

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      130              135              140
Tyr Phe Leu Tyr Gln Ile Leu Arg Gly Leu Lys Tyr Ile His Ser Ala
145              150              155              160
Asn Val Leu His Arg Asp Leu Lys Pro Ser Asn Leu Leu Ser Asn Thr
      165              170              175
Thr Cys Asp Leu Lys Ile Cys Asp Phe Gly Leu Ala Arg Ile Ala Asp
      180              185              190
Pro Glu His Asp His Thr Gly Phe Leu Thr Glu Tyr Val Ala Thr Arg
      195              200              205
Trp Tyr Arg Ala Pro Glu Ile Met Leu Asn Ser Lys Gly Tyr Thr Lys
      210              215              220
Ser Ile Asp Ile Trp Ser Val Gly Cys Ile Leu Ala Glu Met Leu Ser
225              230              235              240
Asn Arg Pro Ile Phe Pro Gly Lys His Tyr Leu Asp Gln Leu Asn His
      245              250              255
Ile Leu Gly Ile Leu Gly Ser Pro Ser Gln Glu Asp Leu Asn Cys Ile
      260              265              270
Ile Asn Met Lys Ala Arg Asn Tyr Leu Gln Ser Leu Pro Ser Lys Thr
      275              280              285
Lys Val Ala Trp Ala Lys Leu Phe Pro Lys Ser Asp Ser Lys Ala Leu
      290              295              300
Asp Leu Leu Asp Arg Met Leu Thr Phe Asn Pro Asn Lys Arg Ile Thr
305              310              315              320
Val Glu Glu Ala Leu Ala His Pro Tyr Leu Glu Gln Tyr Tyr Asp Pro
      325              330              335
Thr Asp Glu Pro Val Ala Glu Glu Pro Phe Thr Phe Ala Met Glu Leu
      340              345              350
Asp Asp Leu Pro Lys Glu Arg Leu Lys Glu Leu Ile Phe Gln Glu Thr
      355              360              365
Ala Arg Phe Gln Pro Gly Val Leu Glu Ala Pro
      370              375

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<210> 17

<211> 648

<212> PRT

<213> Homo sapiens

<400> 17

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Met Glu His Ile Gln Gly Ala Trp Lys Thr Ile Ser Asn Gly Phe Gly
 1              5              10              15
Phe Lys Asp Ala Val Phe Asp Gly Ser Ser Cys Ile Ser Pro Thr Ile
      20              25              30
Val Gln Gln Phe Gly Tyr Gln Arg Arg Ala Ser Asp Asp Gly Lys Leu
      35              40              45
Thr Asp Pro Ser Lys Thr Ser Asn Thr Ile Arg Val Phe Leu Pro Asn
      50              55              60
Lys Gln Arg Thr Val Val Asn Val Arg Asn Gly Met Ser Leu His Asp
      65              70              75              80
Cys Leu Met Lys Ala Leu Lys Val Arg Gly Leu Gln Pro Glu Cys Cys
      85              90              95
Ala Val Phe Arg Leu Leu His Glu His Lys Gly Lys Lys Ala Arg Leu
      100              105              110
Asp Trp Asn Thr Asp Ala Ala Ser Leu Ile Gly Glu Glu Leu Gln Val
      115              120              125
Asp Phe Leu Asp His Val Pro Leu Thr Thr His Asn Phe Ala Arg Lys
      130              135              140
Thr Phe Leu Lys Leu Ala Phe Cys Asp Ile Cys Gln Lys Phe Leu Leu

```

145					150					155				160	
Asn	Gly	Phe	Arg	Cys	Gln	Thr	Cys	Gly	Tyr	Lys	Phe	His	Glu	His	Cys
				165					170					175	
Ser	Thr	Lys	Val	Pro	Thr	Met	Cys	Val	Asp	Trp	Ser	Asn	Ile	Arg	Gln
			180					185					190		
Leu	Leu	Leu	Phe	Pro	Asn	Ser	Thr	Ile	Gly	Asp	Ser	Gly	Val	Pro	Ala
		195					200					205			
Leu	Pro	Ser	Leu	Thr	Met	Arg	Arg	Met	Arg	Glu	Ser	Val	Ser	Arg	Met
	210					215					220				
Pro	Val	Ser	Ser	Gln	His	Arg	Tyr	Ser	Thr	Pro	His	Ala	Phe	Thr	Phe
225					230					235					240
Asn	Thr	Ser	Ser	Pro	Ser	Ser	Glu	Gly	Ser	Leu	Ser	Gln	Arg	Gln	Arg
				245				250						255	
Ser	Thr	Ser	Thr	Pro	Asn	Val	His	Met	Val	Ser	Thr	Thr	Leu	Pro	Val
			260					265					270		
Asp	Ser	Arg	Met	Ile	Glu	Asp	Ala	Ile	Arg	Ser	His	Ser	Glu	Ser	Ala
		275					280					285			
Ser	Pro	Ser	Ala	Leu	Ser	Ser	Ser	Pro	Asn	Asn	Leu	Ser	Pro	Thr	Gly
	290					295				300					
Trp	Ser	Gln	Pro	Lys	Thr	Pro	Val	Pro	Ala	Gln	Arg	Glu	Arg	Ala	Pro
305					310					315					320
Val	Ser	Gly	Thr	Gln	Glu	Lys	Asn	Lys	Ile	Arg	Pro	Arg	Gly	Gln	Arg
				325				330						335	
Asp	Ser	Ser	Tyr	Tyr	Trp	Glu	Ile	Glu	Ala	Ser	Glu	Val	Met	Leu	Ser
			340					345					350		
Thr	Arg	Ile	Gly	Ser	Gly	Ser	Phe	Gly	Thr	Val	Tyr	Lys	Gly	Lys	Trp
		355					360					365			
His	Gly	Asp	Val	Ala	Val	Lys	Ile	Leu	Lys	Val	Val	Asp	Pro	Thr	Pro
	370					375					380				
Glu	Gln	Phe	Gln	Ala	Phe	Arg	Asn	Glu	Val	Ala	Val	Leu	Arg	Lys	Thr
385					390					395					400
Arg	His	Val	Asn	Ile	Leu	Leu	Phe	Met	Gly	Tyr	Met	Thr	Lys	Asp	Asn
			405						410					415	
Leu	Ala	Ile	Val	Thr	Gln	Trp	Cys	Glu	Gly	Ser	Ser	Leu	Tyr	Lys	His
			420					425					430		
Leu	His	Val	Gln	Glu	Thr	Lys	Phe	Gln	Met	Phe	Gln	Leu	Ile	Asp	Ile
		435					440					445			
Ala	Arg	Gln	Thr	Ala	Gln	Gly	Met	Asp	Tyr	Leu	His	Ala	Lys	Asn	Ile
	450					455					460				
Ile	His	Arg	Asp	Met	Lys	Ser	Asn	Asn	Ile	Phe	Leu	His	Glu	Gly	Leu
465					470					475					480
Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Leu	Ala	Thr	Val	Lys	Ser	Arg	Trp
				485				490						495	
Ser	Gly	Ser	Gln	Gln	Val	Glu	Gln	Pro	Thr	Gly	Ser	Val	Leu	Trp	Met
			500					505					510		
Ala	Pro	Glu	Val	Ile	Arg	Met	Gln	Asp	Asn	Asn	Pro	Phe	Ser	Phe	Gln
		515					520					525			
Ser	Asp	Val	Tyr	Ser	Tyr	Gly	Ile	Val	Leu	Tyr	Glu	Leu	Met	Thr	Gly
	530					535					540				
Glu	Leu	Pro	Tyr	Ser	His	Ile	Asn	Asn	Arg	Asp	Gln	Ile	Ile	Phe	Met
545					550					555					560
Val	Gly	Arg	Gly	Tyr	Ala	Ser	Pro	Asp	Leu	Ser	Lys	Leu	Tyr	Lys	Asn
				565				570						575	
Cys	Pro	Lys	Ala	Met	Lys	Arg	Leu	Val	Ala	Asp	Cys	Val	Lys	Lys	Val
			580					585					590		
Lys	Glu	Glu	Arg	Pro	Leu	Phe	Pro	Gln	Ile	Leu	Ser	Ser	Ile	Glu	Leu
			595				600					605			

Leu Gln His Ser Leu Pro Lys Ile Asn Arg Ser Ala Ser Glu Pro Ser
 610 615 620
 Leu His Arg Ala Ala His Thr Glu Asp Ile Asn Ala Cys Thr Leu Thr
 625 630 635 640
 Thr Ser Pro Arg Leu Pro Val Phe
 645

<210> 18
 <211> 480
 <212> PRT
 <213> Homo sapiens

<400> 18
 Met Ser Asp Val Ala Ile Val Lys Glu Gly Trp Leu His Lys Arg Gly
 1 5 10 15
 Glu Tyr Ile Lys Thr Trp Arg Pro Arg Tyr Phe Leu Leu Lys Asn Asp
 20 25 30
 Gly Thr Phe Ile Gly Tyr Lys Glu Arg Pro Gln Asp Val Asp Gln Arg
 35 40 45
 Glu Ala Pro Leu Asn Asn Phe Ser Val Ala Gln Cys Gln Leu Met Lys
 50 55 60
 Thr Glu Arg Pro Arg Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp
 65 70 75 80
 Thr Thr Val Ile Glu Arg Thr Phe His Val Glu Thr Pro Glu Glu Arg
 85 90 95
 Glu Glu Trp Thr Thr Ala Ile Gln Thr Val Ala Asp Gly Leu Lys Lys
 100 105 110
 Gln Glu Glu Glu Glu Met Asp Phe Arg Ser Gly Ser Pro Ser Asp Asn
 115 120 125
 Ser Gly Ala Glu Glu Met Glu Val Ser Leu Ala Lys Pro Lys His Arg
 130 135 140
 Val Thr Met Asn Glu Phe Glu Tyr Leu Lys Leu Leu Gly Lys Gly Thr
 145 150 155 160
 Phe Gly Lys Val Ile Leu Val Lys Glu Lys Ala Thr Gly Arg Tyr Tyr
 165 170 175
 Ala Met Lys Ile Leu Lys Lys Glu Val Ile Val Ala Lys Asp Glu Val
 180 185 190
 Ala His Thr Leu Thr Glu Asn Arg Val Leu Gln Asn Ser Arg His Pro
 195 200 205
 Phe Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys
 210 215 220
 Phe Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser
 225 230 235 240
 Arg Glu Arg Val Phe Ser Glu Asp Arg Ala Arg Phe Tyr Gly Ala Glu
 245 250 255
 Ile Val Ser Ala Leu Asp Tyr Leu His Ser Glu Lys Asn Val Val Tyr
 260 265 270
 Arg Asp Leu Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile
 275 280 285
 Lys Ile Thr Asp Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala
 290 295 300
 Thr Met Lys Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val
 305 310 315 320
 Leu Glu Asp Asn Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly Leu Gly
 325 330 335
 Val Val Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln
 340 345 350

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Asp His Glu Lys Leu Phe Glu Leu Ile Leu Met Glu Glu Ile Arg Phe
      355                      360                      365
Pro Arg Thr Leu Gly Pro Glu Ala Lys Ser Leu Leu Ser Gly Leu Leu
      370                      375                      380
Lys Lys Asp Pro Lys Gln Arg Leu Gly Gly Gly Ser Glu Asp Ala Lys
385                      390                      395                      400
Glu Ile Met Gln His Arg Phe Phe Ala Gly Ile Val Trp Gln His Val
      405                      410                      415
Tyr Glu Lys Lys Leu Ser Pro Pro Phe Lys Pro Gln Val Thr Ser Glu
      420                      425                      430
Thr Asp Thr Arg Tyr Phe Asp Glu Glu Phe Thr Ala Gln Met Ile Thr
      435                      440                      445
Ile Thr Pro Pro Asp Gln Asp Asp Ser Met Glu Cys Val Asp Ser Glu
      450                      455                      460
Arg Arg Pro His Phe Pro Gln Phe Ser Tyr Ser Ala Ser Ser Thr Ala
465                      470                      475                      480

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<210> 19

<211> 724

<212> PRT

<213> Homo sapiens

<400> 19

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Met Ser Ala Glu Gly Tyr Gln Tyr Arg Ala Leu Tyr Asp Tyr Lys Lys
  1                      5                      10                      15
Glu Arg Glu Glu Asp Ile Asp Leu His Leu Gly Asp Ile Leu Thr Val
      20                      25                      30
Asn Lys Gly Ser Leu Val Ala Leu Gly Phe Ser Asp Gly Gln Glu Ala
      35                      40                      45
Arg Pro Glu Glu Ile Gly Trp Leu Asn Gly Tyr Asn Glu Thr Thr Gly
      50                      55                      60
Glu Arg Gly Asp Phe Pro Gly Thr Tyr Val Glu Tyr Ile Gly Arg Lys
      65                      70                      75                      80
Lys Ile Ser Pro Pro Thr Pro Lys Pro Arg Pro Pro Arg Pro Leu Pro
      85                      90                      95
Val Ala Pro Gly Ser Ser Lys Thr Glu Ala Asp Val Glu Gln Gln Ala
      100                      105                      110
Leu Thr Leu Pro Asp Leu Ala Glu Gln Phe Ala Pro Pro Asp Ile Ala
      115                      120                      125
Pro Pro Leu Leu Ile Lys Leu Val Glu Ala Ile Glu Lys Lys Gly Leu
      130                      135                      140
Glu Cys Ser Thr Leu Tyr Arg Thr Gln Ser Ser Ser Asn Leu Ala Glu
145                      150                      155                      160
Leu Arg Gln Leu Leu Asp Cys Asp Thr Pro Ser Val Asp Leu Glu Met
      165                      170                      175
Ile Asp Val His Val Leu Ala Asp Ala Phe Lys Arg Tyr Leu Leu Asp
      180                      185                      190
Leu Pro Asn Pro Val Ile Pro Ala Ala Val Tyr Ser Glu Met Ile Ser
      195                      200                      205
Leu Ala Pro Glu Val Gln Ser Ser Glu Glu Tyr Ile Gln Leu Leu Lys
      210                      215                      220
Lys Leu Ile Arg Ser Pro Ser Ile Pro His Gln Tyr Trp Leu Thr Leu
225                      230                      235                      240
Gln Tyr Leu Leu Lys His Phe Phe Lys Leu Ser Gln Thr Ser Ser Lys
      245                      250                      255
Asn Leu Leu Asn Ala Arg Val Leu Ser Glu Ile Phe Ser Pro Met Leu
      260                      265                      270

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Phe	Arg	Phe	Ser	Ala	Ala	Ser	Ser	Asp	Asn	Thr	Glu	Asn	Leu	Ile	Lys	275	280	285
Val	Ile	Glu	Ile	Leu	Ile	Ser	Thr	Glu	Trp	Asn	Glu	Arg	Gln	Pro	Ala	290	295	300
Pro	Ala	Leu	Pro	Pro	Lys	Pro	Pro	Lys	Pro	Thr	Thr	Val	Ala	Asn	Asn	305	310	315
Gly	Met	Asn	Asn	Asn	Met	Ser	Leu	Gln	Asn	Ala	Glu	Trp	Tyr	Trp	Gly	325	330	335
Asp	Ile	Ser	Arg	Glu	Glu	Val	Asn	Glu	Lys	Leu	Arg	Asp	Thr	Ala	Asp	340	345	350
Gly	Thr	Phe	Leu	Val	Arg	Asp	Ala	Ser	Thr	Lys	Met	His	Gly	Asp	Tyr	355	360	365
Thr	Leu	Thr	Leu	Arg	Lys	Gly	Gly	Asn	Asn	Lys	Leu	Ile	Lys	Ile	Phe	370	375	380
His	Arg	Asp	Gly	Lys	Tyr	Gly	Phe	Ser	Asp	Pro	Leu	Thr	Phe	Ser	Ser	385	390	395
Val	Val	Glu	Leu	Ile	Asn	His	Tyr	Arg	Asn	Glu	Ser	Leu	Ala	Gln	Tyr	405	410	415
Asn	Pro	Lys	Leu	Asp	Val	Lys	Leu	Leu	Tyr	Pro	Val	Ser	Lys	Tyr	Gln	420	425	430
Gln	Asp	Gln	Val	Val	Lys	Glu	Asp	Asn	Ile	Glu	Ala	Val	Gly	Lys	Lys	435	440	445
Leu	His	Glu	Tyr	Asn	Thr	Gln	Phe	Gln	Glu	Lys	Ser	Arg	Glu	Tyr	Asp	450	455	460
Arg	Leu	Tyr	Glu	Glu	Tyr	Thr	Arg	Thr	Ser	Gln	Glu	Ile	Gln	Met	Lys	465	470	475
Arg	Thr	Ala	Ile	Glu	Ala	Phe	Asn	Glu	Thr	Ile	Lys	Ile	Phe	Glu	Glu	485	490	495
Gln	Cys	Gln	Thr	Gln	Glu	Arg	Tyr	Ser	Lys	Glu	Tyr	Ile	Glu	Lys	Phe	500	505	510
Lys	Arg	Glu	Gly	Asn	Glu	Lys	Glu	Ile	Gln	Arg	Ile	Met	His	Asn	Tyr	515	520	525
Asp	Lys	Leu	Lys	Ser	Arg	Ile	Ser	Glu	Ile	Ile	Asp	Ser	Arg	Arg	Arg	530	535	540
Leu	Glu	Glu	Asp	Leu	Lys	Lys	Gln	Ala	Ala	Glu	Tyr	Arg	Glu	Ile	Asp	545	550	555
Lys	Arg	Met	Asn	Ser	Ile	Lys	Pro	Asp	Leu	Ile	Gln	Leu	Arg	Lys	Thr	565	570	575
Arg	Asp	Gln	Tyr	Leu	Met	Trp	Leu	Thr	Gln	Lys	Gly	Val	Arg	Gln	Lys	580	585	590
Lys	Leu	Asn	Glu	Trp	Leu	Gly	Asn	Glu	Asn	Thr	Glu	Asp	Gln	Tyr	Ser	595	600	605
Leu	Val	Glu	Asp	Asp	Glu	Asp	Leu	Pro	His	His	Asp	Glu	Lys	Thr	Trp	610	615	620
Asn	Val	Gly	Ser	Ser	Asn	Arg	Asn	Lys	Ala	Glu	Asn	Leu	Leu	Arg	Gly	625	630	635
Lys	Arg	Asp	Gly	Thr	Phe	Leu	Val	Arg	Glu	Ser	Ser	Lys	Gln	Gly	Cys	645	650	655
Tyr	Ala	Cys	Ser	Val	Val	Val	Asp	Gly	Glu	Val	Lys	His	Cys	Val	Ile	660	665	670
Asn	Lys	Thr	Ala	Thr	Gly	Tyr	Gly	Phe	Ala	Glu	Pro	Tyr	Asn	Leu	Tyr	675	680	685
Ser	Ser	Leu	Lys	Glu	Leu	Val	Leu	His	Tyr	Gln	His	Thr	Ser	Leu	Val	690	695	700
Gln	His	Asn	Asp	Ser	Leu	Asn	Val	Thr	Leu	Ala	Tyr	Pro	Val	Tyr	Ala	705	710	715
Gln	Gln	Arg	Arg															

<210> 20
 <211> 3056
 <212> PRT
 <213> Homo sapiens

<400> 20
 Met Ser Leu Val Leu Asn Asp Leu Leu Ile Cys Cys Arg Gln Leu Glu
 1 5 10 15
 His Asp Arg Ala Thr Glu Arg Lys Lys Glu Val Glu Lys Phe Lys Arg
 20 25 30
 Leu Ile Arg Asp Pro Glu Thr Ile Lys His Leu Asp Arg His Ser Asp
 35 40 45
 Ser Lys Gln Gly Lys Tyr Leu Asn Trp Asp Ala Val Phe Arg Phe Leu
 50 55 60
 Gln Lys Tyr Ile Gln Lys Glu Thr Glu Cys Leu Arg Ile Ala Lys Pro
 65 70 75 80
 Asn Val Ser Ala Ser Thr Gln Ala Ser Arg Gln Lys Lys Met Gln Glu
 85 90 95
 Ile Ser Ser Leu Val Lys Tyr Phe Ile Lys Cys Ala Asn Arg Arg Ala
 100 105 110
 Pro Arg Leu Lys Cys Gln Glu Leu Asn Tyr Ile Met Asp Thr Val
 115 120 125
 Lys Asp Ser Ser Asn Gly Ala Ile Tyr Gly Ala Asp Cys Ser Asn Ile
 130 135 140
 Leu Leu Lys Asp Ile Leu Ser Val Arg Lys Tyr Trp Cys Glu Ile Ser
 145 150 155 160
 Gln Gln Gln Trp Leu Glu Leu Phe Ser Val Tyr Phe Arg Leu Tyr Leu
 165 170 175
 Lys Pro Ser Gln Asp Val His Arg Val Leu Val Ala Arg Ile Ile His
 180 185 190
 Ala Val Thr Lys Gly Cys Cys Ser Gln Thr Asp Gly Leu Asn Ser Lys
 195 200 205
 Phe Leu Asp Phe Phe Ser Lys Ala Ile Gln Cys Ala Arg Gln Glu Lys
 210 215 220
 Ser Ser Ser Gly Leu Asn His Ile Leu Ala Ala Leu Thr Ile Phe Leu
 225 230 235 240
 Lys Thr Leu Ala Val Asn Phe Arg Ile Arg Val Cys Glu Leu Gly Asp
 245 250 255
 Glu Ile Leu Pro Thr Leu Leu Tyr Ile Trp Thr Gln His Arg Leu Asn
 260 265 270
 Asp Ser Leu Lys Glu Val Ile Ile Glu Leu Phe Gln Leu Gln Ile Tyr
 275 280 285
 Ile His His Pro Lys Gly Ala Lys Thr Gln Glu Lys Gly Ala Tyr Glu
 290 295 300
 Ser Thr Lys Trp Arg Ser Ile Leu Tyr Asn Leu Tyr Asp Leu Leu Val
 305 310 315 320
 Asn Glu Ile Ser His Ile Gly Ser Arg Gly Lys Tyr Ser Ser Gly Phe
 325 330 335
 Arg Asn Ile Ala Val Lys Glu Asn Leu Ile Glu Leu Met Ala Asp Ile
 340 345 350
 Cys His Gln Val Phe Asn Glu Asp Thr Arg Ser Leu Glu Ile Ser Gln
 355 360 365
 Ser Tyr Thr Thr Thr Gln Arg Glu Ser Ser Asp Tyr Ser Val Pro Cys
 370 375 380
 Lys Arg Lys Lys Ile Glu Leu Gly Trp Glu Val Ile Lys Asp His Leu

385					390					395				400	
Gln	Lys	Ser	Gln	Asn	Asp	Phe	Asp	Leu	Val	Pro	Trp	Leu	Gln	Ile	Ala
				405					410					415	
Thr	Gln	Leu	Ile	Ser	Lys	Tyr	Pro	Ala	Ser	Leu	Pro	Asn	Cys	Glu	Leu
			420					425					430		
Ser	Pro	Leu	Leu	Met	Ile	Leu	Ser	Gln	Leu	Leu	Pro	Gln	Gln	Arg	His
		435					440					445			
Gly	Glu	Arg	Thr	Pro	Tyr	Val	Leu	Arg	Cys	Leu	Thr	Glu	Val	Ala	Leu
	450					455					460				
Cys	Gln	Asp	Lys	Arg	Ser	Asn	Leu	Glu	Ser	Ser	Gln	Lys	Ser	Asp	Leu
465					470					475					480
Leu	Lys	Leu	Trp	Asn	Lys	Ile	Trp	Cys	Ile	Thr	Phe	Arg	Gly	Ile	Ser
				485					490					495	
Ser	Glu	Gln	Ile	Gln	Ala	Glu	Asn	Phe	Gly	Leu	Leu	Gly	Ala	Ile	Ile
			500					505					510		
Gln	Gly	Ser	Leu	Val	Glu	Val	Asp	Arg	Glu	Phe	Trp	Lys	Leu	Phe	Thr
		515					520					525			
Gly	Ser	Ala	Cys	Arg	Pro	Ser	Cys	Pro	Ala	Val	Cys	Cys	Leu	Thr	Leu
	530					535					540				
Ala	Leu	Thr	Thr	Ser	Ile	Val	Pro	Gly	Ala	Val	Lys	Met	Gly	Ile	Glu
545					550					555					560
Gln	Asn	Met	Cys	Glu	Val	Asn	Arg	Ser	Phe	Ser	Leu	Lys	Glu	Ser	Ile
			565						570					575	
Met	Lys	Trp	Leu	Phe	Tyr	Gln	Leu	Glu	Gly	Asp	Leu	Glu	Asn	Ser	
			580				585					590			
Thr	Glu	Val	Pro	Pro	Ile	Leu	His	Ser	Asn	Phe	Pro	His	Leu	Val	Leu
		595					600					605			
Glu	Lys	Ile	Leu	Val	Ser	Leu	Thr	Met	Lys	Asn	Cys	Lys	Ala	Ala	Met
	610					615					620				
Asn	Phe	Phe	Gln	Ser	Val	Pro	Glu	Cys	Glu	His	His	Gln	Lys	Asp	Lys
625					630					635					640
Glu	Glu	Leu	Ser	Phe	Ser	Glu	Val	Glu	Glu	Leu	Phe	Leu	Gln	Thr	Thr
				645					650					655	
Phe	Asp	Lys	Met	Asp	Phe	Leu	Thr	Ile	Val	Arg	Glu	Cys	Gly	Ile	Glu
			660					665					670		
Lys	His	Gln	Ser	Ser	Ile	Gly	Phe	Ser	Val	His	Gln	Asn	Leu	Lys	Glu
		675					680					685			
Ser	Leu	Asp	Arg	Cys	Leu	Leu	Gly	Leu	Ser	Glu	Gln	Leu	Leu	Asn	Asn
		690				695					700				
Tyr	Ser	Ser	Glu	Ile	Thr	Asn	Ser	Glu	Thr	Leu	Val	Arg	Cys	Ser	Arg
705					710					715					720
Leu	Leu	Val	Gly	Val	Leu	Gly	Cys	Tyr	Cys	Tyr	Met	Gly	Val	Ile	Ala
				725					730					735	
Glu	Glu	Glu	Ala	Tyr	Lys	Ser	Glu	Leu	Phe	Gln	Lys	Ala	Asn	Ser	Leu
			740					745					750		
Met	Gln	Cys	Ala	Gly	Glu	Ser	Ile	Thr	Leu	Phe	Lys	Asn	Lys	Thr	Asn
		755					760					765			
Glu	Glu	Phe	Arg	Ile	Gly	Ser	Leu	Arg	Asn	Met	Met	Gln	Leu	Cys	Thr
		770				775					780				
Arg	Cys	Leu	Ser	Asn	Cys	Thr	Lys	Lys	Ser	Pro	Asn	Lys	Ile	Ala	Ser
785					790					795					800
Gly	Phe	Phe	Leu	Arg	Leu	Leu	Thr	Ser	Lys	Leu	Met	Asn	Asp	Ile	Ala
				805					810					815	
Asp	Ile	Cys	Lys	Ser	Leu	Ala	Ser	Phe	Ile	Lys	Lys	Pro	Phe	Asp	Arg
			820					825					830		
Gly	Glu	Val	Glu	Ser	Met	Glu	Asp	Asp	Thr	Asn	Gly	Asn	Leu	Met	Glu
		835					840					845			

Val Glu Asp Gln Ser Ser Met Asn Leu Phe Asn Asp Tyr Pro Asp Ser
 850 855 860
 Ser Val Ser Asp Ala Asn Glu Pro Gly Glu Ser Gln Ser Thr Ile Gly
 865 870 875 880
 Ala Ile Asn Pro Leu Ala Glu Glu Tyr Leu Ser Lys Gln Asp Leu Leu
 885 890 895
 Phe Leu Asp Met Leu Lys Phe Leu Cys Leu Cys Val Thr Thr Ala Gln
 900 905 910
 Thr Asn Thr Val Ser Phe Arg Ala Ala Asp Ile Arg Arg Lys Leu Leu
 915 920 925
 Met Leu Ile Asp Ser Ser Thr Leu Glu Pro Thr Lys Ser Leu His Leu
 930 935 940
 His Met Tyr Leu Met Leu Leu Lys Glu Leu Pro Gly Glu Glu Tyr Pro
 945 950 955 960
 Leu Pro Met Glu Asp Val Leu Glu Leu Leu Lys Pro Leu Ser Asn Val
 965 970 975
 Cys Ser Leu Tyr Arg Arg Asp Gln Asp Val Cys Lys Thr Ile Leu Asn
 980 985 990
 His Val Leu His Val Val Lys Asn Leu Gly Gln Ser Asn Met Asp Ser
 995 1000 1005
 Glu Asn Thr Arg Asp Ala Gln Gly Gln Phe Leu Thr Val Ile Gly Ala
 1010 1015 1020
 Phe Trp His Leu Thr Lys Glu Arg Lys Tyr Ile Phe Ser Val Arg Met
 1025 1030 1035 1040
 Ala Leu Val Asn Cys Leu Lys Thr Leu Leu Glu Ala Asp Pro Tyr Ser
 1045 1050 1055
 Lys Trp Ala Ile Leu Asn Val Met Gly Lys Asp Phe Pro Val Asn Glu
 1060 1065 1070
 Val Phe Thr Gln Phe Leu Ala Asp Asn His His Gln Val Arg Met Leu
 1075 1080 1085
 Ala Ala Glu Ser Ile Asn Arg Leu Phe Gln Asp Thr Lys Gly Asp Ser
 1090 1095 1100
 Ser Arg Leu Leu Lys Ala Leu Pro Leu Lys Leu Gln Gln Thr Ala Phe
 1105 1110 1115 1120
 Glu Asn Ala Tyr Leu Lys Ala Gln Glu Gly Met Arg Glu Met Ser His
 1125 1130 1135
 Ser Ala Glu Asn Pro Glu Thr Leu Asp Glu Ile Tyr Asn Arg Lys Ser
 1140 1145 1150
 Val Leu Leu Thr Leu Ile Ala Val Leu Ser Cys Ser Pro Ile Cys
 1155 1160 1165
 Glu Lys Gln Ala Leu Phe Ala Leu Cys Lys Ser Val Lys Glu Asn Gly
 1170 1175 1180
 Leu Glu Pro His Leu Val Lys Lys Val Leu Glu Lys Val Ser Glu Thr
 1185 1190 1195 1200
 Phe Gly Tyr Arg Arg Leu Glu Asp Phe Met Ala Ser His Leu Asp Tyr
 1205 1210 1215
 Leu Val Leu Glu Trp Leu Asn Leu Gln Asp Thr Glu Tyr Asn Leu Ser
 1220 1225 1230
 Ser Phe Pro Phe Ile Leu Leu Asn Tyr Thr Asn Ile Glu Asp Phe Tyr
 1235 1240 1245
 Arg Ser Cys Tyr Lys Val Leu Ile Pro His Leu Val Ile Arg Ser His
 1250 1255 1260
 Phe Asp Glu Val Lys Ser Ile Ala Asn Gln Ile Gln Glu Asp Trp Lys
 1265 1270 1275 1280
 Ser Leu Leu Thr Asp Cys Phe Pro Lys Ile Leu Val Asn Ile Leu Pro
 1285 1290 1295
 Tyr Phe Ala Tyr Glu Gly Thr Arg Asp Ser Gly Met Ala Gln Gln Arg

1300 1305 1310
 Glu Thr Ala Thr Lys Val Tyr Asp Met Leu Lys Ser Glu Asn Leu Leu
 1315 1320 1325
 Gly Lys Gln Ile Asp His Leu Phe Ile Ser Asn Leu Pro Glu Ile Val
 1330 1335 1340
 Val Glu Leu Leu Met Thr Leu His Glu Pro Ala Asn Ser Ser Ala Ser
 1345 1350 1355 1360
 Gln Ser Thr Asp Leu Cys Asp Phe Ser Gly Asp Leu Asp Pro Ala Pro
 1365 1370 1375
 Asn Pro Pro His Phe Pro Ser His Val Ile Lys Ala Thr Phe Ala Tyr
 1380 1385 1390
 Ile Ser Asn Cys His Lys Thr Lys Leu Lys Ser Ile Leu Glu Ile Leu
 1395 1400 1405
 Ser Lys Ser Pro Asp Ser Tyr Gln Lys Ile Leu Leu Ala Ile Cys Glu
 1410 1415 1420
 Gln Ala Ala Glu Thr Asn Asn Val Tyr Lys Lys His Arg Ile Leu Lys
 1425 1430 1435 1440
 Ile Tyr His Leu Phe Val Ser Leu Leu Lys Asp Ile Lys Ser Gly
 1445 1450 1455
 Leu Gly Gly Ala Trp Ala Phe Val Leu Arg Asp Val Ile Tyr Thr Leu
 1460 1465 1470
 Ile His Tyr Ile Asn Gln Arg Pro Ser Cys Ile Met Asp Val Ser Leu
 1475 1480 1485
 Arg Ser Phe Ser Leu Cys Cys Asp Leu Leu Ser Gln Val Cys Gln Thr
 1490 1495 1500
 Ala Val Thr Tyr Cys Lys Asp Ala Leu Glu Asn His Leu His Val Ile
 1505 1510 1515 1520
 Val Gly Thr Leu Ile Pro Leu Val Tyr Glu Gln Val Glu Val Gln Lys
 1525 1530 1535
 Gln Val Leu Asp Leu Leu Lys Tyr Leu Val Ile Asp Asn Lys Asp Asn
 1540 1545 1550
 Glu Asn Leu Tyr Ile Thr Ile Lys Leu Leu Asp Pro Phe Pro Asp His
 1555 1560 1565
 Val Val Phe Lys Asp Leu Arg Ile Thr Gln Gln Lys Ile Lys Tyr Ser
 1570 1575 1580
 Arg Gly Pro Phe Ser Leu Leu Glu Glu Ile Asn His Phe Leu Ser Val
 1585 1590 1595 1600
 Ser Val Tyr Asp Ala Leu Pro Leu Thr Arg Leu Glu Gly Leu Lys Asp
 1605 1610 1615
 Leu Arg Arg Gln Leu Glu Leu His Lys Asp Gln Met Val Asp Ile Met
 1620 1625 1630
 Arg Ala Ser Gln Asp Asn Pro Gln Asp Gly Ile Met Val Lys Leu Val
 1635 1640 1645
 Val Asn Leu Leu Gln Leu Ser Lys Met Ala Ile Asn His Thr Gly Glu
 1650 1655 1660
 Lys Glu Val Leu Glu Ala Val Gly Ser Cys Leu Gly Glu Val Gly Pro
 1665 1670 1675 1680
 Ile Asp Phe Ser Thr Ile Ala Ile Gln His Ser Lys Asp Ala Ser Tyr
 1685 1690 1695
 Thr Lys Ala Leu Lys Leu Phe Glu Asp Lys Glu Leu Gln Trp Thr Phe
 1700 1705 1710
 Ile Met Leu Thr Tyr Leu Asn Asn Thr Leu Val Glu Asp Cys Val Lys
 1715 1720 1725
 Val Arg Ser Ala Ala Val Thr Cys Leu Lys Asn Ile Leu Ala Thr Lys
 1730 1735 1740
 Thr Gly His Ser Phe Trp Glu Ile Tyr Lys Met Thr Thr Asp Pro Met
 1745 1750 1755 1760

Leu Ala Tyr Leu Gln Pro Phe Arg Thr Ser Arg Lys Lys Phe Leu Glu
 1765 1770 1775
 Val Pro Arg Phe Asp Lys Glu Asn Pro Phe Glu Gly Leu Asp Asp Ile
 1780 1785 1790
 Asn Leu Trp Ile Pro Leu Ser Glu Asn His Asp Ile Trp Ile Lys Thr
 1795 1800 1805
 Leu Thr Cys Ala Phe Leu Asp Ser Gly Gly Thr Lys Cys Glu Ile Leu
 1810 1815 1820
 Gln Leu Leu Lys Pro Met Cys Glu Val Lys Thr Asp Phe Cys Gln Thr
 1825 1830 1835 1840
 Val Leu Pro Tyr Leu Ile His Asp Ile Leu Leu Gln Asp Thr Asn Glu
 1845 1850 1855
 Ser Trp Arg Asn Leu Leu Ser Thr His Val Gln Gly Phe Phe Thr Ser
 1860 1865 1870
 Cys Leu Arg His Phe Ser Gln Thr Ser Arg Ser Thr Thr Pro Ala Asn
 1875 1880 1885
 Leu Asp Ser Glu Ser Glu His Phe Phe Arg Cys Cys Leu Asp Lys Lys
 1890 1895 1900
 Ser Gln Arg Thr Met Leu Ala Val Val Asp Tyr Met Arg Arg Gln Lys
 1905 1910 1915 1920
 Arg Pro Ser Ser Gly Thr Ile Phe Asn Asp Ala Phe Trp Leu Asp Leu
 1925 1930 1935
 Asn Tyr Leu Glu Val Ala Lys Val Ala Gln Ser Cys Ala Ala His Phe
 1940 1945 1950
 Thr Ala Leu Leu Tyr Ala Glu Ile Tyr Ala Asp Lys Lys Ser Met Asp
 1955 1960 1965
 Asp Gln Glu Lys Arg Ser Leu Ala Phe Glu Glu Gly Ser Gln Ser Thr
 1970 1975 1980
 Thr Ile Ser Ser Leu Ser Glu Lys Ser Lys Glu Glu Thr Gly Ile Ser
 1985 1990 1995 2000
 Leu Gln Asp Leu Leu Leu Glu Ile Tyr Arg Ser Ile Gly Glu Pro Asp
 2005 2010 2015
 Ser Leu Tyr Gly Cys Gly Gly Gly Lys Met Leu Gln Pro Ile Thr Arg
 2020 2025 2030
 Leu Arg Thr Tyr Glu His Glu Ala Met Trp Gly Lys Ala Leu Val Thr
 2035 2040 2045
 Tyr Asp Leu Glu Thr Ala Ile Pro Ser Ser Thr Arg Gln Ala Gly Ile
 2050 2055 2060
 Ile Gln Ala Leu Gln Asn Leu Gly Leu Cys His Ile Leu Ser Val Tyr
 2065 2070 2075 2080
 Leu Lys Gly Leu Asp Tyr Glu Asn Lys Asp Trp Cys Pro Glu Leu Glu
 2085 2090 2095
 Glu Leu His Tyr Gln Ala Ala Trp Arg Asn Met Gln Trp Asp His Cys
 2100 2105 2110
 Thr Ser Val Ser Lys Glu Val Glu Gly Thr Ser Tyr His Glu Ser Leu
 2115 2120 2125
 Tyr Asn Ala Leu Gln Ser Leu Arg Asp Arg Glu Phe Ser Thr Phe Tyr
 2130 2135 2140
 Glu Ser Leu Lys Tyr Ala Arg Val Lys Glu Val Glu Glu Met Cys Lys
 2145 2150 2155 2160
 Arg Ser Leu Glu Ser Val Tyr Ser Leu Tyr Pro Thr Leu Ser Arg Leu
 2165 2170 2175
 Gln Ala Ile Gly Glu Leu Glu Ser Ile Gly Glu Leu Phe Ser Arg Ser
 2180 2185 2190
 Val Thr His Arg Gln Leu Ser Glu Val Tyr Ile Lys Trp Gln Lys His
 2195 2200 2205
 Ser Gln Leu Leu Lys Asp Ser Asp Phe Ser Phe Gln Glu Pro Ile Met

2210	2215	2220
Ala Leu Arg Thr Val Ile Leu Glu Ile Leu Met Glu Lys Glu Met Asp		
2225	2230	2235
Asn Ser Gln Arg Glu Cys Ile Lys Asp Ile Leu Thr Lys His Leu Val		2240
	2245	2250
Glu Leu Ser Ile Leu Ala Arg Thr Phe Lys Asn Thr Gln Leu Pro Glu		2255
	2260	2265
Arg Ala Ile Phe Gln Ile Lys Gln Tyr Asn Ser Val Ser Cys Gly Val		2270
	2275	2280
Ser Glu Trp Gln Leu Glu Glu Ala Gln Val Phe Trp Ala Lys Lys Glu		2285
	2290	2295
Gln Ser Leu Ala Leu Ser Ile Leu Lys Gln Met Ile Lys Lys Leu Asp		2300
2305	2310	2315
Ala Ser Cys Ala Ala Asn Asn Pro Ser Leu Lys Leu Thr Tyr Thr Glu		2320
	2325	2330
Cys Leu Arg Val Cys Gly Asn Trp Leu Ala Glu Thr Cys Leu Glu Asn		2335
	2340	2345
Pro Ala Val Ile Met Gln Thr Tyr Leu Glu Lys Ala Val Glu Val Ala		2350
	2355	2360
Gly Asn Tyr Asp Gly Glu Ser Ser Asp Glu Leu Arg Asn Gly Lys Met		2365
	2370	2375
Lys Ala Phe Leu Ser Leu Ala Arg Phe Ser Asp Thr Gln Tyr Gln Arg		2380
2385	2390	2395
Ile Glu Asn Tyr Met Lys Ser Ser Glu Phe Glu Asn Lys Gln Ala Leu		2400
	2405	2410
Leu Lys Arg Ala Lys Glu Glu Val Gly Leu Leu Arg Glu His Lys Ile		2415
	2420	2425
Gln Thr Asn Arg Tyr Thr Val Lys Val Gln Arg Glu Leu Glu Leu Asp		2430
	2435	2440
Glu Leu Ala Leu Arg Ala Leu Lys Glu Asp Arg Lys Arg Phe Leu Cys		2445
	2450	2455
Lys Ala Val Glu Asn Tyr Ile Asn Cys Leu Leu Ser Gly Glu Glu His		2460
2465	2470	2475
Asp Met Trp Val Phe Arg Leu Cys Ser Leu Trp Leu Glu Asn Ser Gly		2480
	2485	2490
Val Ser Glu Val Asn Gly Met Met Lys Arg Asp Gly Met Lys Ile Pro		2495
	2500	2505
Thr Tyr Lys Phe Leu Pro Leu Met Tyr Gln Leu Ala Ala Arg Met Gly		2510
	2515	2520
Thr Lys Met Met Gly Gly Leu Gly Phe His Glu Val Leu Asn Asn Leu		2525
	2530	2535
Ile Ser Arg Ile Ser Met Asp His Pro His His Thr Leu Phe Ile Ile		2540
2545	2550	2555
Leu Ala Leu Ala Asn Ala Asn Arg Asp Glu Phe Leu Thr Lys Pro Glu		2560
	2565	2570
Val Ala Arg Arg Ser Arg Ile Thr Lys Asn Val Pro Lys Gln Ser Ser		2575
	2580	2585
Gln Leu Asp Glu Asp Arg Thr Glu Ala Ala Asn Arg Ile Ile Cys Thr		2590
	2595	2600
Ile Arg Ser Arg Arg Pro Gln Met Val Arg Ser Val Glu Ala Leu Cys		2605
	2610	2615
Asp Ala Tyr Ile Ile Leu Ala Asn Leu Asp Ala Thr Gln Trp Lys Thr		2620
2625	2630	2635
Gln Arg Lys Gly Ile Asn Ile Pro Ala Asp Gln Pro Ile Thr Lys Leu		2640
	2645	2650
Lys Asn Leu Glu Asp Val Val Val Pro Thr Met Glu Ile Lys Val Asp		2655
	2660	2665
		2670

His Thr Gly Glu Tyr Gly Asn Leu Val Thr Ile Gln Ser Phe Lys Ala
 2675 2680 2685
 Glu Phe Arg Leu Ala Gly Gly Val Asn Leu Pro Lys Ile Ile Asp Cys
 2690 2695 2700
 Val Gly Ser Asp Gly Lys Glu Arg Arg Gln Leu Val Lys Gly Arg Asp
 2705 2710 2715 2720
 Asp Leu Arg Gln Asp Ala Val Met Gln Gln Val Phe Gln Met Cys Asn
 2725 2730 2735
 Thr Leu Leu Gln Arg Asn Thr Glu Thr Arg Lys Arg Lys Leu Thr Ile
 2740 2745 2750
 Cys Thr Tyr Lys Val Val Pro Leu Ser Gln Arg Ser Gly Val Leu Glu
 2755 2760 2765
 Trp Cys Thr Gly Thr Val Pro Ile Gly Glu Phe Leu Val Asn Asn Glu
 2770 2775 2780
 Asp Gly Ala His Lys Arg Tyr Arg Pro Asn Asp Phe Ser Ala Phe Gln
 2785 2790 2795 2800
 Cys Gln Lys Lys Met Met Glu Val Gln Lys Lys Ser Phe Glu Glu Lys
 2805 2810 2815
 Tyr Glu Val Phe Met Asp Val Cys Gln Asn Phe Gln Pro Val Phe Arg
 2820 2825 2830
 Tyr Phe Cys Met Glu Lys Phe Leu Asp Pro Ala Ile Trp Phe Glu Lys
 2835 2840 2845
 Arg Leu Ala Tyr Thr Arg Ser Val Ala Thr Ser Ser Ile Val Gly Tyr
 2850 2855 2860
 Ile Leu Gly Leu Gly Asp Arg His Val Gln Asn Ile Leu Ile Asn Glu
 2865 2870 2875 2880
 Gln Ser Ala Glu Leu Val His Ile Asp Leu Gly Val Ala Phe Glu Gln
 2885 2890 2895
 Gly Lys Ile Leu Pro Thr Pro Glu Thr Val Pro Phe Arg Leu Thr Arg
 2900 2905 2910
 Asp Ile Val Asp Gly Met Gly Ile Thr Gly Val Glu Gly Val Phe Arg
 2915 2920 2925
 Arg Cys Cys Glu Lys Thr Met Glu Val Met Arg Asn Ser Gln Glu Thr
 2930 2935 2940
 Leu Leu Thr Ile Val Glu Val Leu Leu Tyr Asp Pro Leu Phe Asp Trp
 2945 2950 2955 2960
 Thr Met Asn Pro Leu Lys Ala Leu Tyr Leu Gln Gln Arg Pro Glu Asp
 2965 2970 2975
 Glu Thr Glu Leu His Pro Thr Leu Asn Ala Asp Asp Gln Glu Cys Lys
 2980 2985 2990
 Arg Asn Leu Ser Asp Ile Asp Gln Ser Phe Asp Lys Val Ala Glu Arg
 2995 3000 3005
 Val Leu Met Arg Leu Gln Glu Lys Leu Lys Gly Val Glu Glu Gly Thr
 3010 3015 3020
 Val Leu Ser Val Gly Gly Gln Val Asn Leu Leu Ile Gln Gln Ala Ile
 3025 3030 3035 3040
 Asp Pro Lys Asn Leu Ser Arg Leu Phe Pro Gly Trp Lys Ala Trp Val
 3045 3050 3055

<210> 21

<211> 450

<212> PRT

<213> Homo sapiens

<400> 21

Met Ser Ala Ile Gln Ala Ala Trp Pro Ser Gly Thr Glu Cys Ile Ala
 1 5 10 15

Lys	Tyr	Asn	Phe	His	Gly	Thr	Ala	Glu	Gln	Asp	Leu	Pro	Phe	Cys	Lys
			20					25					30		
Gly	Asp	Val	Leu	Thr	Ile	Val	Ala	Val	Thr	Lys	Asp	Pro	Asn	Trp	Tyr
		35				40						45			
Lys	Ala	Lys	Asn	Lys	Val	Gly	Arg	Glu	Gly	Ile	Ile	Pro	Ala	Asn	Tyr
	50					55					60				
Val	Gln	Lys	Arg	Glu	Gly	Val	Lys	Ala	Gly	Thr	Lys	Leu	Ser	Leu	Met
	65				70					75					80
Pro	Trp	Phe	His	Gly	Lys	Ile	Thr	Arg	Glu	Gln	Ala	Glu	Arg	Leu	Leu
			85					90						95	
Tyr	Pro	Pro	Glu	Thr	Gly	Leu	Phe	Leu	Val	Arg	Glu	Ser	Thr	Asn	Tyr
			100					105					110		
Pro	Gly	Asp	Tyr	Thr	Leu	Cys	Val	Ser	Cys	Asp	Gly	Lys	Val	Glu	His
		115					120					125			
Tyr	Arg	Ile	Met	Tyr	His	Ala	Ser	Lys	Leu	Ser	Ile	Asp	Glu	Glu	Val
	130					135					140				
Tyr	Phe	Glu	Asn	Leu	Met	Gln	Leu	Val	Glu	His	Tyr	Thr	Ser	Asp	Ala
	145				150					155					160
Asp	Gly	Leu	Cys	Thr	Arg	Leu	Ile	Lys	Pro	Lys	Val	Met	Glu	Gly	Thr
				165					170					175	
Val	Ala	Ala	Gln	Asp	Glu	Phe	Tyr	Arg	Ser	Gly	Trp	Ala	Leu	Asn	Met
			180					185					190		
Lys	Glu	Leu	Lys	Leu	Leu	Gln	Thr	Ile	Gly	Lys	Gly	Glu	Phe	Gly	Asp
		195					200					205			
Val	Met	Leu	Gly	Asp	Tyr	Arg	Gly	Asn	Lys	Val	Ala	Val	Lys	Cys	Ile
	210					215					220				
Lys	Asn	Asp	Ala	Thr	Ala	Gln	Ala	Phe	Leu	Ala	Glu	Ala	Ser	Val	Met
					230					235					240
Thr	Gln	Leu	Arg	His	Ser	Asn	Leu	Val	Gln	Leu	Leu	Gly	Val	Ile	Val
				245					250					255	
Glu	Glu	Lys	Gly	Gly	Leu	Tyr	Ile	Val	Thr	Glu	Tyr	Met	Ala	Lys	Gly
			260					265					270		
Ser	Leu	Val	Asp	Tyr	Leu	Arg	Ser	Arg	Gly	Arg	Ser	Val	Leu	Gly	Gly
		275					280					285			
Asp	Cys	Leu	Leu	Lys	Phe	Ser	Leu	Asp	Val	Cys	Glu	Ala	Met	Glu	Tyr
	290					295				300					
Leu	Glu	Gly	Asn	Asn	Phe	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Val
	305				310					315					320
Leu	Val	Ser	Glu	Asp	Asn	Val	Ala	Lys	Val	Ser	Asp	Phe	Gly	Leu	Thr
				325					330					335	
Lys	Glu	Ala	Ser	Ser	Thr	Gln	Asp	Thr	Gly	Lys	Leu	Pro	Val	Lys	Trp
			340					345					350		
Thr	Ala	Pro	Glu	Ala	Leu	Arg	Glu	Lys	Lys	Phe	Ser	Thr	Lys	Ser	Asp
		355					360					365			
Val	Trp	Ser	Phe	Gly	Ile										

<210> 22
 <211> 1142
 <212> PRT
 <213> Homo sapiens

<400> 22

Met	Ala	Phe	Cys	Ala	Lys	Met	Arg	Ser	Ser	Lys	Lys	Thr	Glu	Val	Asn
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Leu	Glu	Ala	Pro	Glu	Pro	Gly	Val	Glu	Val	Ile	Phe	Tyr	Leu	Ser	Asp
			20					25					30		
Arg	Glu	Pro	Leu	Arg	Leu	Gly	Ser	Gly	Glu	Tyr	Thr	Ala	Glu	Glu	Leu
		35				40					45				
Cys	Ile	Arg	Ala	Ala	Gln	Ala	Cys	Arg	Ile	Ser	Pro	Leu	Cys	His	Asn
	50					55				60					
Leu	Phe	Ala	Leu	Tyr	Asp	Glu	Asn	Thr	Lys	Leu	Trp	Tyr	Ala	Pro	Asn
65					70					75				80	
Arg	Thr	Ile	Thr	Val	Asp	Asp	Lys	Met	Ser	Leu	Arg	Leu	His	Tyr	Arg
				85					90					95	
Met	Arg	Phe	Tyr	Phe	Thr	Asn	Trp	His	Gly	Thr	Asn	Asp	Asn	Glu	Gln
			100					105					110		
Ser	Val	Trp	Arg	His	Ser	Pro	Lys	Lys	Gln	Lys	Asn	Gly	Tyr	Glu	Lys
		115					120					125			
Lys	Lys	Ile	Pro	Asp	Ala	Thr	Pro	Leu	Leu	Asp	Ala	Ser	Ser	Leu	Glu
	130					135					140				
Tyr	Leu	Phe	Ala	Gln	Gly	Gln	Tyr	Asp	Leu	Val	Lys	Cys	Leu	Ala	Pro
145					150					155					160
Ile	Arg	Asp	Pro	Lys	Thr	Glu	Gln	Asp	Gly	His	Asp	Ile	Glu	Asn	Glu
				165					170					175	
Cys	Leu	Gly	Met	Ala	Val	Leu	Ala	Ile	Ser	His	Tyr	Ala	Met	Met	Lys
			180					185					190		
Lys	Met	Gln	Leu	Pro	Glu	Leu	Pro	Lys	Asp	Ile	Ser	Tyr	Lys	Arg	Tyr
		195					200					205			
Ile	Pro	Glu	Thr	Leu	Asn	Lys	Ser	Ile	Arg	Gln	Arg	Asn	Leu	Leu	Thr
	210					215					220				
Arg	Met	Arg	Ile	Asn	Asn	Val	Phe	Lys	Asp	Phe	Leu	Lys	Glu	Phe	Asn
225				230						235					240
Asn	Lys	Thr	Ile	Cys	Asp	Ser	Ser	Val	Ser	Thr	His	Asp	Leu	Lys	Val
				245					250					255	
Lys	Tyr	Leu	Ala	Thr	Leu	Glu	Thr	Leu	Lys	His	Tyr	Gly	Ala	Glu	
			260					265				270			
Ile	Phe	Glu	Thr	Ser	Met	Leu	Leu	Ile	Ser	Ser	Glu	Asn	Glu	Met	Asn
		275					280					285			
Trp	Phe	His	Ser	Asn	Asp	Gly	Gly	Asn	Val	Leu	Tyr	Tyr	Glu	Val	Met
	290					295					300				
Val	Thr	Gly	Asn	Leu	Gly	Ile	Gln	Trp	Arg	His	Lys	Pro	Asn	Val	Val
305					310					315					320
Ser	Val	Glu	Lys	Glu	Lys	Asn	Lys	Leu	Lys	Arg	Lys	Lys	Leu	Glu	Asn
				325					330				335		
Lys	Asp	Lys	Lys	Asp	Glu	Glu	Lys	Asn	Lys	Ile	Arg	Glu	Glu	Trp	Asn
			340					345					350		
Asn	Phe	Ser	Phe	Phe	Pro	Glu	Ile	Thr	His	Ile	Val	Ile	Lys	Glu	Ser
		355					360					365			
Val	Val	Ser	Ile	Asn	Lys	Gln	Asp	Asn	Lys	Lys	Met	Glu	Leu	Lys	Leu
	370					375					380				
Ser	Ser	His	Glu	Glu	Ala	Leu	Ser	Phe	Val	Ser	Leu	Val	Asp	Gly	Tyr
385					390					395					400
Phe	Arg	Leu	Thr	Ala	Asp	Ala	His	His	Tyr	Leu	Cys	Thr	Asp	Val	Ala

				405					410					415			
Pro	Pro	Leu	Ile	Val	His	Asn	Ile	Gln	Asn	Gly	Cys	His	Gly	Pro	Ile		
			420						425				430				
Cys	Thr	Glu	Tyr	Ala	Ile	Asn	Lys	Leu	Arg	Gln	Glu	Gly	Ser	Glu	Glu		
		435					440					445					
Gly	Met	Tyr	Val	Leu	Arg	Trp	Ser	Cys	Thr	Asp	Phe	Asp	Asn	Ile	Leu		
	450					455				460							
Met	Thr	Val	Thr	Cys	Phe	Glu	Lys	Ser	Glu	Gln	Val	Gln	Gly	Ala	Gln		
465					470					475					480		
Lys	Gln	Phe	Lys	Asn	Phe	Gln	Ile	Glu	Val	Gln	Lys	Gly	Arg	Tyr	Ser		
				485					490					495			
Leu	His	Gly	Ser	Asp	Arg	Ser	Phe	Pro	Ser	Leu	Gly	Asp	Leu	Met	Ser		
			500					505					510				
His	Leu	Lys	Lys	Gln	Ile	Leu	Arg	Thr	Asp	Asn	Ile	Ser	Phe	Met	Leu		
	515						520					525					
Lys	Arg	Cys	Cys	Gln	Pro	Lys	Pro	Arg	Glu	Ile	Ser	Asn	Leu	Leu	Val		
	530					535					540						
Ala	Thr	Lys	Lys	Ala	Gln	Glu	Trp	Gln	Pro	Val	Tyr	Pro	Met	Ser	Gln		
545					550					555					560		
Leu	Ser	Phe	Asp	Arg	Ile	Leu	Lys	Lys	Asp	Leu	Val	Gln	Gly	Glu	His		
			565						570					575			
Leu	Gly	Arg	Gly	Thr	Arg	Thr	His	Ile	Tyr	Ser	Gly	Thr	Leu	Met	Asp		
		580						585					590				
Tyr	Lys	Asp	Asp	Glu	Gly	Thr	Ser	Glu	Glu	Lys	Lys	Ile	Lys	Val	Ile		
		595					600					605					
Leu	Lys	Val	Leu	Asp	Pro	Ser	His	Arg	Asp	Ile	Ser	Leu	Ala	Phe	Phe		
	610					615				620							
Glu	Ala	Ala	Ser	Met	Met	Arg	Gln	Val	Ser	His	Lys	His	Ile	Val	Tyr		
625				630						635					640		
Leu	Tyr	Gly	Val	Cys	Val	Arg	Asp	Val	Glu	Asn	Ile	Met	Val	Glu	Glu		
			645					650					655				
Phe	Val	Glu	Gly	Gly	Pro	Leu	Asp	Leu	Phe	Met	His	Arg	Lys	Ser	Asp		
		660					665					670					
Val	Leu	Thr	Thr	Pro	Trp	Lys	Phe	Lys	Val	Ala	Lys	Gln	Leu	Ala	Ser		
	675						680					685					
Ala	Leu	Ser	Tyr	Leu	Glu	Asp	Lys	Asp	Leu	Val	His	Gly	Asn	Val	Cys		
	690					695				700							
Thr	Lys	Asn	Leu	Leu	Leu	Ala	Arg	Glu	Gly	Ile	Asp	Ser	Glu	Cys	Gly		
705				710						715					720		
Pro	Phe	Ile	Lys	Leu	Ser	Asp	Pro	Gly	Ile	Pro	Ile	Thr	Val	Leu	Ser		
			725					730					735				
Arg	Gln	Glu	Cys	Ile	Glu	Arg	Ile	Pro	Trp	Ile	Ala	Pro	Glu	Cys	Val		
		740					745					750					
Glu	Asp	Ser	Lys	Asn	Leu	Ser	Val	Ala	Ala	Asp	Lys	Trp	Ser	Phe	Gly		
	755					760					765						
Thr	Thr	Leu	Trp	Glu	Ile	Cys	Tyr	Asn	Gly	Glu	Ile	Pro	Leu	Lys	Asp		
	770				775					780							
Lys	Thr	Leu	Ile	Glu	Lys	Glu	Arg	Phe	Tyr	Glu	Ser	Arg	Cys	Arg	Pro		
785				790					795						800		
Val	Thr	Pro	Ser	Cys	Lys	Glu	Leu	Ala	Asp	Leu	Met	Thr	Arg	Cys	Met		
			805					810					815				
Asn	Tyr	Asp	Pro	Asn	Gln	Arg	Pro	Phe	Arg	Ala	Ile	Met	Arg	Asp			
		820						825				830					
Ile	Asn	Lys	Leu	Glu	Glu	Gln	Asn	Pro	Asp	Ile	Val	Ser	Arg	Lys	Lys		
	835					840					845						
Asn	Gln	Pro	Thr	Glu	Val	Asp	Pro	Thr	His	Phe	Glu	Lys	Arg	Phe	Leu		
	850					855					860						

Lys Arg Ile Arg Asp Leu Gly Glu Gly His Phe Gly Lys Val Glu Leu
 865 870 875 880
 Cys Arg Tyr Asp Pro Glu Asp Asn Thr Gly Glu Gln Val Ala Val Lys
 885 890 895
 Ser Leu Lys Pro Glu Ser Gly Gly Asn His Ile Ala Asp Leu Lys Lys
 900 905 910
 Glu Ile Glu Ile Leu Arg Asn Leu Tyr His Glu Asn Ile Val Lys Tyr
 915 920 925
 Lys Gly Ile Cys Thr Glu Asp Gly Gly Asn Gly Ile Lys Leu Ile Met
 930 935 940
 Glu Phe Leu Pro Ser Gly Ser Leu Lys Glu Tyr Leu Pro Lys Asn Lys
 945 950 955 960
 Asn Lys Ile Asn Leu Lys Gln Gln Leu Lys Tyr Ala Val Gln Ile Cys
 965 970 975
 Lys Gly Met Asp Tyr Leu Gly Ser Arg Gln Tyr Val His Arg Asp Leu
 980 985 990
 Ala Ala Arg Asn Val Leu Val Glu Ser Glu His Gln Val Lys Ile Gly
 995 1000 1005
 Asp Phe Gly Leu Thr Lys Ala Ile Glu Thr Asp Lys Glu Tyr Tyr Thr
 1010 1015 1020
 Val Lys Asp Asp Arg Asp Ser Pro Val Phe Trp Tyr Ala Pro Glu Cys
 1025 1030 1035 1040
 Leu Met Gln Ser Lys Phe Tyr Ile Ala Ser Asp Val Trp Ser Phe Gly
 1045 1050 1055
 Val Thr Leu His Glu Leu Leu Thr Tyr Cys Asp Ser Asp Ser Ser Pro
 1060 1065 1070
 Met Ala Leu Phe Leu Lys Met Ile Gly Pro Thr His Gly Gln Met Thr
 1075 1080 1085
 Val Thr Arg Leu Val Asn Thr Leu Lys Glu Gly Lys Arg Leu Pro Cys
 1090 1095 1100
 Pro Pro Asn Cys Pro Asp Glu Val Tyr Gln Leu Met Arg Lys Cys Trp
 1105 1110 1115 1120
 Glu Phe Gln Pro Ser Asn Arg Thr Ser Phe Gln Asn Leu Ile Glu Gly
 1125 1130 1135
 Phe Glu Ala Leu Leu Lys
 1140

<210> 23

<211> 1338

<212> PRT

<213> Homo sapiens

<400> 23

Met Val Ser Tyr Trp Asp Thr Gly Val Leu Leu Cys Ala Leu Leu Ser
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 20 25 30
 Glu Leu Ser Leu Lys Gly Thr Gln His Ile Met Gln Ala Gly Gln Thr
 35 40 45
 Leu His Leu Gln Cys Arg Gly Glu Ala Ala His Lys Trp Ser Leu Pro
 50 55 60
 Glu Met Val Ser Lys Glu Ser Glu Arg Leu Ser Ile Thr Lys Ser Ala
 65 70 75 80
 Cys Gly Arg Asn Gly Lys Gln Phe Cys Ser Thr Leu Thr Leu Asn Thr
 85 90 95
 Ala Gln Ala Asn His Thr Gly Phe Tyr Ser Cys Lys Tyr Leu Ala Val
 100 105 110

Pro	Thr	Ser	Lys	Lys	Lys	Glu	Thr	Glu	Ser	Ala	Ile	Tyr	Ile	Phe	Ile
		115						120				125			
Ser	Asp	Thr	Gly	Arg	Pro	Phe	Val	Glu	Met	Tyr	Ser	Glu	Ile	Pro	Glu
	130					135					140				
Ile	Ile	His	Met	Thr	Glu	Gly	Arg	Glu	Leu	Val	Ile	Pro	Cys	Arg	Val
145					150					155					160
Thr	Ser	Pro	Asn	Ile	Thr	Val	Thr	Leu	Lys	Phe	Pro	Leu	Asp	Thr	
			165						170					175	
Leu	Ile	Pro	Asp	Gly	Lys	Arg	Ile	Ile	Trp	Asp	Ser	Arg	Lys	Gly	Phe
			180					185					190		
Ile	Ile	Ser	Asn	Ala	Thr	Tyr	Lys	Glu	Ile	Gly	Leu	Leu	Thr	Cys	Glu
		195					200					205			
Ala	Thr	Val	Asn	Gly	His	Leu	Tyr	Lys	Thr	Asn	Tyr	Leu	Thr	His	Arg
	210					215					220				
Gln	Thr	Asn	Thr	Ile	Ile	Asp	Val	Gln	Ile	Ser	Thr	Pro	Arg	Pro	Val
225					230					235					240
Lys	Leu	Leu	Arg	Gly	His	Thr	Leu	Val	Leu	Asn	Cys	Thr	Ala	Thr	Thr
				245					250					255	
Pro	Leu	Asn	Thr	Arg	Val	Gln	Met	Thr	Trp	Ser	Tyr	Pro	Asp	Glu	Lys
			260					265					270		
Asn	Lys	Arg	Ala	Ser	Val	Arg	Arg	Arg	Ile	Asp	Gln	Ser	Asn	Ser	His
		275				280					285				
Ala	Asn	Ile	Phe	Tyr	Ser	Val	Leu	Thr	Ile	Asp	Lys	Met	Gln	Asn	Lys
	290					295					300				
Asp	Lys	Gly	Leu	Tyr	Thr	Cys	Arg	Val	Arg	Ser	Gly	Pro	Ser	Phe	Lys
305					310					315					320
Ser	Val	Asn	Thr	Ser	Val	His	Ile	Tyr	Asp	Lys	Ala	Phe	Ile	Thr	Val
			325						330					335	
Lys	His	Arg	Lys	Gln	Gln	Val	Leu	Glu	Thr	Val	Ala	Gly	Lys	Arg	Ser
			340					345					350		
Tyr	Arg	Leu	Ser	Met	Lys	Val	Lys	Ala	Phe	Pro	Ser	Pro	Glu	Val	Val
		355				360						365			
Trp	Leu	Lys	Asp	Gly	Leu	Pro	Ala	Thr	Glu	Lys	Ser	Ala	Arg	Tyr	Leu
	370					375					380				
Thr	Arg	Gly	Tyr	Ser	Leu	Ile	Ile	Lys	Asp	Val	Thr	Glu	Glu	Asp	Ala
385					390					395					400
Gly	Asn	Tyr	Thr	Ile	Leu	Leu	Ser	Ile	Lys	Gln	Ser	Asn	Val	Phe	Lys
				405					410					415	
Asn	Leu	Thr	Ala	Thr	Leu	Ile	Val	Asn	Val	Lys	Pro	Gln	Ile	Tyr	Glu
			420					425					430		
Lys	Ala	Val	Ser	Ser	Phe	Pro	Asp	Pro	Ala	Leu	Tyr	Pro	Leu	Gly	Ser
		435					440					445			
Arg	Gln	Ile	Leu	Thr	Cys	Thr	Ala	Tyr	Gly	Ile	Pro	Gln	Pro	Thr	Ile
	450					455					460				
Lys	Trp	Phe	Trp	His	Pro	Cys	Asn	His	Asn	His	Ser	Glu	Ala	Arg	Cys
465					470					475					480
Asp	Phe	Cys	Ser	Asn	Asn	Glu	Glu	Ser	Phe	Ile	Leu	Asp	Ala	Asp	Ser
				485					490					495	
Asn	Met	Gly	Asn	Arg	Ile	Glu	Ser	Ile	Thr	Gln	Arg	Met	Ala	Ile	Ile
			500					505					510		
Glu	Gly	Lys	Asn	Lys	Met	Ala	Ser	Thr	Leu	Val	Val	Ala	Asp	Ser	Arg
		515					520					525			
Ile	Ser	Gly	Ile	Tyr	Ile	Cys	Ile	Ala	Ser	Asn	Lys	Val	Gly	Thr	Val
		530				535					540				
Gly	Arg	Asn	Ile	Ser	Phe	Tyr	Ile	Thr	Asp	Val	Pro	Asn	Gly	Phe	His
545					550					555					560
Val	Asn	Leu	Glu	Lys	Met	Pro	Thr	Glu	Gly	Glu	Asp	Leu	Lys	Leu	Ser

				565					570					575			
Cys	Thr	Val	Asn	Lys	Phe	Leu	Tyr	Arg	Asp	Val	Thr	Trp	Ile	Leu	Leu		
			580					585					590				
Arg	Thr	Val	Asn	Asn	Arg	Thr	Met	His	Tyr	Ser	Ile	Ser	Lys	Gln	Lys		
		595					600					605					
Met	Ala	Ile	Thr	Lys	Glu	His	Ser	Ile	Thr	Leu	Asn	Leu	Thr	Ile	Met		
	610					615					620						
Asn	Val	Ser	Leu	Gln	Asp	Ser	Gly	Thr	Tyr	Ala	Cys	Arg	Ala	Arg	Asn		
625					630					635					640		
Val	Tyr	Thr	Gly	Glu	Glu	Ile	Leu	Gln	Lys	Lys	Glu	Ile	Thr	Ile	Arg		
			645					650						655			
Asp	Gln	Glu	Ala	Pro	Tyr	Leu	Leu	Arg	Asn	Leu	Ser	Asp	His	Thr	Val		
			660					665					670				
Ala	Ile	Ser	Ser	Ser	Thr	Thr	Leu	Asp	Cys	His	Ala	Asn	Gly	Val	Pro		
		675					680					685					
Glu	Pro	Gln	Ile	Thr	Trp	Phe	Lys	Asn	Asn	His	Lys	Ile	Gln	Gln	Glu		
	690					695					700						
Pro	Gly	Ile	Ile	Leu	Gly	Pro	Gly	Ser	Ser	Thr	Leu	Phe	Ile	Glu	Arg		
705					710					715					720		
Val	Thr	Glu	Glu	Asp	Glu	Gly	Val	Tyr	His	Cys	Lys	Ala	Thr	Asn	Gln		
			725					730						735			
Lys	Gly	Ser	Val	Glu	Ser	Ser	Ala	Tyr	Leu	Thr	Val	Gln	Gly	Thr	Ser		
		740						745						750			
Asp	Lys	Ser	Asn	Leu	Glu	Leu	Ile	Thr	Leu	Thr	Cys	Thr	Cys	Val	Ala		
	755						760					765					
Ala	Thr	Leu	Phe	Trp	Leu	Leu	Leu	Thr	Leu	Leu	Ile	Arg	Lys	Met	Lys		
	770					775					780						
Arg	Ser	Ser	Ser	Glu	Ile	Lys	Thr	Asp	Tyr	Leu	Ser	Ile	Ile	Met	Asp		
785				790						795				800			
Pro	Asp	Glu	Val	Pro	Leu	Asp	Glu	Gln	Cys	Glu	Arg	Leu	Pro	Tyr	Asp		
			805					810						815			
Ala	Ser	Lys	Trp	Glu	Phe	Ala	Arg	Glu	Arg	Leu	Lys	Leu	Gly	Lys	Ser		
		820						825					830				
Leu	Gly	Arg	Gly	Ala	Phe	Gly	Lys	Val	Val	Gln	Ala	Ser	Ala	Phe	Gly		
	835						840					845					
Ile	Lys	Lys	Ser	Pro	Thr	Cys	Arg	Thr	Val	Ala	Val	Lys	Met	Leu	Lys		
	850					855					860						
Glu	Gly	Ala	Thr	Ala	Ser	Glu	Tyr	Lys	Ala	Leu	Met	Thr	Glu	Leu	Lys		
865				870						875				880			
Ile	Leu	Thr	His	Ile	Gly	His	His	Leu	Asn	Val	Val	Asn	Leu	Leu	Gly		
			885					890						895			
Ala	Cys	Thr	Lys	Gln	Gly	Gly	Pro	Leu	Met	Val	Ile	Val	Glu	Tyr	Cys		
		900						905					910				
Lys	Tyr	Gly	Asn	Leu	Ser	Asn	Tyr	Leu	Lys	Ser	Lys	Arg	Asp	Leu	Phe		
		915					920					925					
Phe	Leu	Asn	Lys	Asp	Ala	Ala	Leu	His	Met	Glu	Pro	Lys	Lys	Glu	Lys		
	930					935					940						
Met	Glu	Pro	Gly	Leu	Glu	Gln	Gly	Lys	Lys	Pro	Arg	Leu	Asp	Ser	Val		
945				950						955				960			
Thr	Ser	Ser	Glu	Ser	Phe	Ala	Ser	Ser	Gly	Phe	Gln	Glu	Asp	Lys	Ser		
			965						970					975			
Leu	Ser	Asp	Val	Glu	Glu	Glu	Glu	Asp	Ser	Asp	Gly	Phe	Tyr	Lys	Glu		
		980						985					990				
Pro	Ile	Thr	Met	Glu	Asp	Leu	Ile	Ser	Tyr	Ser	Phe	Gln	Val	Ala	Arg		
	995					1000					1005						
Gly	Met	Glu	Phe	Leu	Ser	Ser	Arg	Lys	Cys	Ile	His	Arg	Asp	Leu	Ala		
	1010					1015					1020						

Ala Arg Asn Ile Leu Leu Ser Glu Asn Asn Val Val Lys Ile Cys Asp
 1025 1030 1035 1040
 Phe Gly Leu Ala Arg Asp Ile Tyr Lys Asn Pro Asp Tyr Val Arg Lys
 1045 1050 1055
 Gly Asp Thr Arg Leu Pro Leu Lys Trp Met Ala Pro Glu Ser Ile Phe
 1060 1065 1070
 Asp Lys Ile Tyr Ser Thr Lys Ser Asp Val Trp Ser Tyr Gly Val Leu
 1075 1080 1085
 Leu Trp Glu Ile Phe Ser Leu Gly Gly Ser Pro Tyr Pro Gly Val Gln
 1090 1095 1100
 Met Asp Glu Asp Phe Cys Ser Arg Leu Arg Glu Gly Met Arg Met Arg
 1105 1110 1115 1120
 Ala Pro Glu Tyr Ser Thr Pro Glu Ile Tyr Gln Ile Met Leu Asp Cys
 1125 1130 1135
 Trp His Arg Asp Pro Lys Glu Arg Pro Arg Phe Ala Glu Leu Val Glu
 1140 1145 1150
 Lys Leu Gly Asp Leu Leu Gln Ala Asn Val Gln Gln Asp Gly Lys Asp
 1155 1160 1165
 Tyr Ile Pro Ile Asn Ala Ile Leu Thr Gly Asn Ser Gly Phe Thr Tyr
 1170 1175 1180
 Ser Thr Pro Ala Phe Ser Glu Asp Phe Phe Lys Glu Ser Ile Ser Ala
 1185 1190 1195 1200
 Pro Lys Phe Asn Ser Gly Ser Ser Asp Asp Val Arg Tyr Val Asn Ala
 1205 1210 1215
 Phe Lys Phe Met Ser Leu Glu Arg Ile Lys Thr Phe Glu Glu Leu Leu
 1220 1225 1230
 Pro Asn Ala Thr Ser Met Phe Asp Asp Tyr Gln Gly Asp Ser Ser Thr
 1235 1240 1245
 Leu Leu Ala Ser Pro Met Leu Lys Arg Phe Thr Trp Thr Asp Ser Lys
 1250 1255 1260
 Pro Lys Ala Ser Leu Lys Ile Asp Leu Arg Val Thr Ser Lys Ser Lys
 1265 1270 1275 1280
 Glu Ser Gly Leu Ser Asp Val Ser Arg Pro Ser Phe Cys His Ser Ser
 1285 1290 1295
 Cys Gly His Val Ser Glu Gly Lys Arg Arg Phe Thr Tyr Asp His Ala
 1300 1305 1310
 Glu Leu Glu Arg Lys Ile Ala Cys Cys Ser Pro Pro Pro Asp Tyr Asn
 1315 1320 1325
 Ser Val Val Leu Tyr Ser Thr Pro Pro Ile
 1330 1335

<210> 24

<211> 309

<212> PRT

<213> Homo sapiens

<400> 24

Met Asp Glu Lys Val Phe Thr Lys Glu Leu Asp Gln Trp Ile Glu Gln
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 Leu Asn Glu Cys Lys Gln Leu Ser Glu Ser Gln Val Lys Ser Leu Cys
 20 25 30
 Glu Lys Ala Lys Glu Ile Leu Thr Lys Glu Ser Asn Val Gln Glu Val
 35 40 45
 Arg Cys Pro Val Thr Val Cys Gly Asp Val His Gly Gln Phe His Asp
 50 55 60
 Leu Met Glu Leu Phe Arg Ile Gly Gly Lys Ser Pro Asp Thr Asn Tyr
 65 70 75 80

Leu	Phe	Met	Gly	Asp	Tyr	Val	Asp	Arg	Gly	Tyr	Tyr	Ser	Val	Glu	Thr	
				85					90					95		
Val	Thr	Leu	Leu	Val	Ala	Leu	Lys	Val	Arg	Tyr	Arg	Glu	Arg	Ile	Thr	
				100					105					110		
Ile	Leu	Arg	Gly	Asn	His	Glu	Ser	Arg	Gln	Ile	Thr	Gln	Val	Tyr	Gly	
				115					120					125		
Phe	Tyr	Asp	Glu	Cys	Leu	Arg	Lys	Tyr	Gly	Asn	Ala	Asn	Val	Trp	Lys	
				130					135					140		
Tyr	Phe	Thr	Asp	Leu	Phe	Asp	Tyr	Leu	Pro	Leu	Thr	Ala	Leu	Val	Asp	
				145					150					155		
Gly	Gln	Ile	Phe	Cys	Leu	His	Gly	Gly	Leu	Ser	Pro	Ser	Ile	Asp	Thr	
				165					170					175		
Leu	Asp	His	Ile	Arg	Ala	Leu	Asp	Arg	Leu	Gln	Glu	Val	Pro	His	Glu	
				180					185					190		
Gly	Pro	Met	Cys	Asp	Leu	Leu	Trp	Ser	Asp	Pro	Asp	Asp	Arg	Gly	Gly	
				195					200					205		
Trp	Gly	Ile	Ser	Pro	Arg	Gly	Ala	Gly	Tyr	Thr	Phe	Gly	Gln	Asp	Ile	
				210					215					220		
Ser	Glu	Thr	Phe	Asn	His	Ala	Asn	Gly	Leu	Thr	Leu	Val	Ser	Arg	Ala	
				225					230					235		
His	Gln	Leu	Val	Met	Glu	Gly	Tyr	Asn	Trp	Cys	His	Asp	Arg	Asn	Val	
				245					250					255		
Val	Thr	Ile	Phe	Ser	Ala	Pro	Asn	Tyr	Cys	Tyr	Arg	Cys	Gly	Asn	Gln	
				260					265					270		
Ala	Ala	Ile	Met	Glu	Leu	Asp	Asp	Thr	Leu	Lys	Tyr	Ser	Phe	Leu	Gln	
				275					280					285		
Phe	Asp	Pro	Ala	Pro	Arg	Arg	Gly	Glu	Pro	His	Val	Thr	Arg	Arg	Thr	
				290					295					300		
Pro	Asp	Tyr	Phe	Leu												
305																

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<210> 25
<211> 394
<212> PRT
<213> Homo sapiens
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<400>	25														
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Arg	Leu	Met	Asn	Arg	Asp	Glu	Asn	Gly	Gly	Gly	Ala	Gly	Gly	Ser	Gly
			20					25					30		
Ser	His	Gly	Thr	Leu	Gly	Leu	Pro	Ser	Gly	Gly	Lys	Cys	Leu	Leu	Leu
		35				40					45				
Asp	Cys	Arg	Pro	Phe	Leu	Ala	His	Ser	Ala	Gly	Tyr	Ile	Leu	Gly	Ser
	50					55					60				
Val	Asn	Val	Arg	Cys	Asn	Thr	Ile	Val	Arg	Arg	Arg	Ala	Lys	Gly	Ser
65					70					75					80
Val	Ser	Leu	Glu	Gln	Ile	Leu	Pro	Ala	Glu	Glu	Glu	Val	Arg	Ala	Arg
				85					90					95	
Leu	Arg	Ser	Gly	Leu	Tyr	Ser	Ala	Val	Ile	Val	Tyr	Asp	Glu	Gly	Ser
			100					105					110		
Pro	Arg	Ala	Glu	Ser	Leu	Arg	Glu	Asp	Ser	Thr	Val	Ser	Leu	Val	Val
		115					120					125			
Gln	Ala	Leu	Arg	Arg	Asn	Ala	Glu	Arg	Thr	Asp	Ile	Cys	Leu	Leu	Lys
	130					135					140				
Gly	Gly	Tyr	Glu	Arg	Phe	Ser	Ser	Glu	Tyr	Pro	Glu	Phe	Cys	Ser	Lys
145					150					155					160

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Thr Lys Ala Leu Ala Ala Ile Pro Pro Pro Val Pro Pro Ser Ala Thr
      165      170      175
Glu Pro Leu Asp Leu Gly Cys Ser Ser Cys Gly Thr Pro Leu His Asp
      180      185      190
Gln Gly Gly Pro Val Glu Ile Leu Pro Phe Leu Tyr Leu Gly Ser Ala
      195      200      205
Tyr His Ala Ala Arg Arg Asp Met Leu Asp Ala Leu Gly Ile Thr Ala
      210      215      220
Leu Leu Asn Val Ser Ser Asp Cys Pro Asn His Phe Glu Gly His Tyr
      225      230      235      240
Gln Tyr Lys Cys Ile Pro Val Glu Asp Asn His Lys Ala Asp Ile Ser
      245      250      255
Ser Trp Phe Met Glu Ala Ile Glu Tyr Ile Asp Ala Val Lys Asp Cys
      260      265      270
Arg Gly Arg Val Leu Val His Cys Gln Ala Gly Ile Ser Arg Ser Ala
      275      280      285
Thr Ile Cys Leu Ala Tyr Leu Met Met Lys Lys Arg Val Arg Leu Glu
      290      295      300
Glu Ala Phe Glu Phe Val Lys Gln Arg Arg Ser Ile Ile Ser Pro Asn
      305      310      315      320
Phe Ser Phe Met Gly Gln Leu Leu Gln Phe Glu Ser Gln Val Leu Ala
      325      330      335
Thr Ser Cys Ala Ala Glu Ala Ala Ser Pro Ser Gly Pro Leu Arg Glu
      340      345      350
Arg Gly Lys Thr Pro Ala Thr Pro Thr Ser Gln Phe Val Phe Ser Phe
      355      360      365
Pro Val Ser Val Gly Val His Ser Ala Pro Ser Ser Leu Pro Tyr Leu
      370      375      380
His Ser Pro Ile Thr Thr Ser Pro Ser Cys
      385      390

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<210> 26

<211> 185

<212> PRT

<213> Homo sapiens

<400> 26

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Met Ser Gly Ser Phe Glu Leu Ser Val Gln Asp Leu Asn Asp Leu Leu
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Ser Asp Gly Ser Gly Cys Tyr Ser Leu Pro Ser Gln Pro Cys Asn Glu
      20      25      30
Val Thr Pro Arg Ile Tyr Val Gly Asn Ala Ser Val Ala Gln Asp Ile
      35      40      45
Pro Lys Leu Gln Lys Leu Gly Ile Thr His Val Leu Asn Ala Ala Glu
      50      55      60
Gly Arg Ser Phe Met His Val Asn Thr Asn Ala Asn Phe Tyr Lys Asp
      65      70      75      80
Ser Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe
      85      90      95
Asn Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala
      100      105      110
Leu Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr
      115      120      125
Ser Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys
      130      135      140
Met Asp Val Lys Ser Ala Leu Ser Ile Val Arg Gln Asn Arg Glu Ile
      145      150      155      160

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Gly Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg
165 170 175
Leu Ala Lys Glu Gly Lys Leu Lys Pro
180 185

```
<210> 27
<211> 657
<212> PRT
<213> Homo sapiens
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<400>	27														
Met	Arg	Arg	Ala	Val	Cys	Phe	Pro	Ala	Leu	Cys	Leu	Leu	Leu	Asn	Leu
1				5					10					15	
His	Ala	Ala	Gly	Cys	Phe	Ser	Gly	Asn	Asn	Asp	His	Phe	Leu	Ala	Ile
			20					25					30		
Asn	Gln	Lys	Lys	Ser	Gly	Lys	Pro	Val	Phe	Ile	Tyr	Lys	His	Ser	Gln
		35					40					45			
Asp	Ile	Glu	Lys	Ser	Leu	Asp	Ile	Ala	Pro	Gln	Lys	Ile	Tyr	Arg	His
	50					55					60				
Ser	Tyr	His	Ser	Ser	Ser	Glu	Ala	Gln	Val	Ser	Lys	Arg	His	Gln	Ile
65					70					75					80
Val	Asn	Ser	Ala	Phe	Pro	Arg	Pro	Ala	Tyr	Asp	Pro	Ser	Leu	Asn	Leu
				85					90					95	
Leu	Ala	Met	Asp	Gly	Gln	Asp	Leu	Glu	Val	Glu	Asn	Leu	Pro	Ile	Pro
			100					105					110		
Ala	Ala	Asn	Val	Ile	Val	Val	Thr	Leu	Gln	Met	Asp	Val	Asn	Lys	Leu
		115					120					125			
Asn	Ile	Thr	Leu	Leu	Arg	Ile	Phe	Arg	Gln	Gly	Val	Ala	Ala	Ala	Leu
	130					135					140				
Gly	Leu	Leu	Pro	Gln	Gln	Val	His	Ile	Asn	Arg	Leu	Ile	Gly	Lys	Lys
145					150					155					160
Asn	Ser	Ile	Glu	Leu	Phe	Val	Ser	Pro	Ile	Asn	Arg	Lys	Thr	Gly	Ile
				165					170					175	
Ser	Asp	Ala	Leu	Pro	Ser	Glu	Glu	Val	Leu	Arg	Ser	Leu	Asn	Ile	Asn
			180					185					190		
Val	Leu	His	Gln	Ser	Leu	Ser	Gln	Phe	Gly	Ile	Thr	Glu	Val	Ser	Pro
		195					200					205			
Glu	Lys	Asn	Val	Leu	Gln	Gly	Gln	His	Glu	Ala	Asp	Lys	Ile	Trp	Ser
	210					215					220				
Lys	Glu	Gly	Phe	Tyr	Ala	Val	Val	Ile	Phe	Leu	Ser	Ile	Phe	Val	Ile
225					230				235						240
Ile	Val	Thr	Cys	Leu	Met	Ile	Leu	Tyr	Arg	Leu	Lys	Glu	Arg	Phe	Gln
				245					250					255	
Leu	Ser	Leu	Arg	Gln	Asp	Lys	Glu	Lys	Asn	Gln	Glu	Ile	His	Leu	Ser
			260					265					270		
Pro	Ile	Thr	Leu	Gln	Pro	Ala	Leu	Ser	Glu	Ala	Lys	Thr	Val	His	Ser
		275					280					285			
Met	Val	Gln	Pro	Glu	Gln	Ala	Pro	Lys	Val	Leu	Asn	Val	Val	Val	Asp
	290					295					300				
Pro	Gln	Gly	Arg	Gly	Ala	Pro	Glu	Ile	Arg	Ala	Thr	Thr	Ala	Thr	Ser
305					310					315					320
Val	Cys	Pro	Ser	Pro	Phe	Lys	Met	Lys	Pro	Ile	Gly	Leu	Gln	Glu	Arg
				325					330					335	
Arg	Gly	Ser	Asn	Val	Ser	Leu	Thr	Leu	Asp	Met	Ser	Ser	Leu	Gly	Asn</

Glu Tyr Leu Gln Ser Ala Ser Arg Ile Leu Thr Arg Ser Gln Leu Arg
 370 375 380
 Asp Val Val Ala Ser Ser His Leu Leu Gln Ser Glu Phe Met Glu Ile
 385 390 395 400
 Pro Met Asn Phe Val Asp Pro Lys Glu Ile Asp Ile Pro Arg His Gly
 405 410 415
 Thr Lys Asn Arg Tyr Lys Thr Ile Leu Pro Asn Pro Leu Ser Arg Val
 420 425 430
 Cys Leu Arg Pro Lys Asn Val Thr Asp Ser Leu Ser Thr Tyr Ile Asn
 435 440 445
 Ala Asn Tyr Ile Arg Gly Tyr Ser Gly Lys Glu Lys Ala Phe Ile Ala
 450 455 460
 Thr Gln Gly Pro Met Ile Asn Thr Val Asp Asp Phe Trp Gln Met Val
 465 470 475 480
 Trp Gln Glu Asp Ser Pro Val Ile Val Met Ile Thr Lys Leu Lys Glu
 485 490 495
 Lys Asn Glu Lys Cys Val Leu Tyr Trp Pro Glu Lys Arg Gly Ile Tyr
 500 505 510
 Gly Lys Val Glu Val Leu Val Ile Ser Val Asn Glu Cys Asp Asn Tyr
 515 520 525
 Thr Ile Arg Asn Leu Val Leu Lys Gln Gly Ser His Thr Gln His Val
 530 535 540
 Lys His Tyr Trp Tyr Thr Ser Trp Pro Asp His Lys Thr Pro Asp Ser
 545 550 555 560
 Ala Gln Pro Leu Leu Gln Leu Met Leu Asp Val Glu Glu Asp Arg Leu
 565 570 575
 Ala Ser Gln Gly Arg Gly Pro Val Val Val His Cys Ser Ala Gly Ile
 580 585 590
 Gly Arg Thr Gly Cys Phe Ile Ala Thr Ser Ile Gly Cys Gln Gln Leu
 595 600 605
 Lys Glu Glu Gly Val Val Asp Ala Leu Ser Ile Val Cys Gln Leu Arg
 610 615 620
 Met Asp Arg Gly Gly Met Val Gln Thr Ser Glu Gln Tyr Glu Phe Val
 625 630 635 640
 His His Ala Leu Cys Leu Tyr Glu Ser Arg Leu Ser Ala Glu Thr Val
 645 650 655
 Gln

<210> 28
 <211> 537
 <212> PRT
 <213> Homo sapiens

<400> 28
 Glu Arg Leu Leu Gly Arg Pro Gln Pro Ile Val Met Glu Ala Leu Asp
 1 5 10 15
 Glu Ala Glu Gly Leu Gln Asp Ser Gln Arg Glu Met Pro Pro Pro Pro
 20 25 30
 Pro Pro Ser Pro Pro Ser Asp Pro Ala Gln Lys Pro Pro Pro Arg Gly
 35 40 45
 Ala Gly Ser His Ser Leu Thr Val Arg Ser Ser Leu Cys Leu Phe Ala
 50 55 60
 Ala Ser Gln Phe Leu Leu Ala Cys Gly Val Leu Trp Phe Ser Gly Tyr
 65 70 75 80
 Gly His Met Trp Ser Gln Asn Ala Thr Asn Leu Val Ser Ser Leu Leu
 85 90 95

Thr	Leu	Leu	Lys	Gln	Leu	Glu	Pro	Thr	Ser	Trp	Leu	Asp	Ser	Gly	Thr	100	105	110
Trp	Gly	Val	Pro	Gly	Leu	Leu	Leu	Val	Phe	Leu	Ser	Val	Gly	Leu	Val	115	120	125
Leu	Val	Thr	Thr	Leu	Val	Trp	His	Leu	Leu	Arg	Thr	Pro	Pro	Glu	Pro	130	135	140
Pro	Thr	Pro	Leu	Pro	Pro	Glu	Asp	Arg	Arg	Gln	Ser	Val	Ser	Arg	Gln	145	150	155
Pro	Ser	Phe	Thr	Tyr	Ser	Glu	Trp	Met	Glu	Glu	Lys	Ile	Glu	Asp	Asp	165	170	175
Phe	Leu	Asp	Leu	Asp	Pro	Val	Pro	Glu	Thr	Pro	Val	Phe	Asp	Cys	Val	180	185	190
Met	Asp	Ile	Lys	Pro	Glu	Ala	Asp	Pro	Thr	Ser	Leu	Thr	Val	Lys	Ser	195	200	205
Met	Gly	Leu	Gln	Glu	Arg	Arg	Gly	Ser	Asn	Val	Ser	Leu	Thr	Leu	Asp	210	215	220
Met	Cys	Thr	Pro	Gly	Cys	Asn	Glu	Glu	Gly	Phe	Gly	Tyr	Leu	Met	Ser	225	230	235
Pro	Arg	Glu	Glu	Ser	Ala	Arg	Glu	Tyr	Leu	Leu	Ser	Ala	Ser	Arg	Val	245	250	255
Leu	Gln	Ala	Glu	Glu	Leu	His	Glu	Lys	Ala	Leu	Asp	Pro	Phe	Leu	Leu	260	265	270
Gln	Ala	Glu	Phe	Phe	Glu	Ile	Pro	Met	Asn	Phe	Val	Val	Pro	Lys	Glu	275	280	285
Tyr	Asp	Ile	Pro	Gly	Arg	Cys	Arg	Lys	Asn	Arg	Tyr	Lys	Thr	Ile	Leu	290	295	300
Pro	Asn	Pro	His	Ser	Arg	Val	Cys	Leu	Thr	Ser	Pro	Asp	Pro	Asp	Asp	305	310	315
Pro	Leu	Ser	Ser	Tyr	Ile	Asn	Ala	Asn	Tyr	Ile	Arg	Gly	Tyr	Gly	Gly	325	330	335
Glu	Glu	Lys	Val	Tyr	Ile	Ala	Thr	Gln	Gly	Pro	Ile	Val	Ser	Thr	Val	340	345	350
Ala	Asp	Phe	Trp	Arg	Met	Val	Trp	Gln	Glu	His	Thr	Pro	Ile	Ile	Val	355	360	365
Met	Ile	Thr	Asn	Ile	Glu	Glu	Met	Asn	Glu	Lys	Cys	Thr	Glu	Tyr	Trp	370	375	380
Pro	Glu	Glu	Gln	Val	Ala	Tyr	Asp	Gly	Val	Glu	Ile	Thr	Val	Gln	Lys	385	390	395
Val	Ile	His	Thr	Glu	Asp	Tyr	Arg	Leu	Arg	Leu	Ile	Ser	Leu	Lys	Ser	405	410	415
Gly	Thr	Glu	Glu	Arg	Gly	Leu	Lys	His	Tyr	Trp	Phe	Thr	Ser	Trp	Pro	420	425	430
Asp	Gln	Lys	Thr	Pro	Asp	Arg	Ala	Pro	Pro	Leu	Leu	His	Leu	Val	Arg	435	440	445
Glu	Val	Glu	Glu	Ala	Ala	Gln	Gln	Glu	Gly	Pro	His	Cys	Ala	Pro	Ile	450	455	460
Ile	Val	His	Cys	Ser	Ala	Gly	Ile	Gly	Arg	Thr	Gly	Cys	Phe	Ile	Ala	465	470	475
Thr	Ser	Ile	Cys	Cys	Gln	Gln	Leu	Arg	Gln	Glu	Gly	Val	Val	Asp	Ile	485	490	495
Leu	Lys	Thr	Thr	Cys	Gln	Leu	Arg	Gln	Asp	Arg	Gly	Gly	Met	Ile	Gln	500	505	510
His	Cys	Glu	Gln	Tyr	Gln	Phe	Val	His	His	Val	Met	Ser	Leu	Tyr	Glu	515	520	525
Lys	Gln	Leu	Ser	His	Gln	Ser	Pro	Glu								530	535	

<210> 29
 <211> 403
 <212> PRT
 <213> Homo sapiens

<400> 29
 Met Thr Ala Ile Ile Lys Glu Ile Val Ser Arg Asn Lys Arg Arg Tyr
 1 5 10 15
 Gln Glu Asp Gly Phe Asp Leu Asp Leu Thr Tyr Ile Tyr Pro Asn Ile
 20 25 30
 Ile Ala Met Gly Phe Pro Ala Glu Arg Leu Glu Gly Val Tyr Arg Asn
 35 40 45
 Asn Ile Asp Asp Val Val Arg Phe Leu Asp Ser Lys His Lys Asn His
 50 55 60
 Tyr Lys Ile Tyr Asn Leu Cys Ala Glu Arg His Tyr Asp Thr Ala Lys
 65 70 75 80
 Phe Asn Cys Arg Val Ala Gln Tyr Pro Phe Glu Asp His Asn Pro Pro
 85 90 95
 Gln Leu Glu Leu Ile Lys Pro Phe Cys Glu Asp Leu Asp Gln Trp Leu
 100 105 110
 Ser Glu Asp Asp Asn His Val Ala Ile His Cys Lys Ala Gly Lys
 115 120 125
 Gly Arg Thr Gly Val Met Ile Cys Ala Tyr Leu Leu His Arg Gly Lys
 130 135 140
 Phe Leu Lys Ala Gln Glu Ala Leu Asp Phe Tyr Gly Glu Val Arg Thr
 145 150 155 160
 Arg Asp Lys Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Val Tyr
 165 170 175
 Tyr Tyr Ser Tyr Leu Leu Lys Asn His Leu Asp Tyr Arg Pro Val Ala
 180 185 190
 Leu Leu Phe His Lys Met Met Phe Glu Thr Ile Pro Met Phe Ser Gly
 195 200 205
 Gly Thr Cys Asn Pro Gln Phe Val Val Cys Gln Leu Lys Val Lys Ile
 210 215 220
 Tyr Ser Ser Asn Ser Gly Pro Thr Arg Arg Glu Asp Lys Phe Met Tyr
 225 230 235 240
 Phe Glu Phe Pro Gln Pro Leu Pro Val Cys Gly Asp Ile Lys Val Glu
 245 250 255
 Phe Phe His Lys Gln Asn Lys Met Leu Lys Lys Asp Lys Met Phe His
 260 265 270
 Phe Trp Val Asn Thr Phe Phe Ile Pro Gly Pro Glu Glu Thr Ser Glu
 275 280 285
 Lys Val Glu Asn Gly Ser Leu Cys Asp Gln Glu Ile Asp Ser Ile Cys
 290 295 300
 Ser Ile Glu Arg Ala Asp Asn Asp Lys Glu Tyr Leu Val Leu Thr Leu
 305 310 315 320
 Thr Lys Asn Asp Leu Asp Lys Ala Asn Lys Asp Lys Ala Asn Arg Tyr
 325 330 335
 Phe Ser Pro Asn Phe Lys Val Lys Leu Tyr Phe Thr Lys Thr Val Glu
 340 345 350
 Glu Pro Ser Asn Pro Glu Ala Ser Ser Ser Thr Ser Val Thr Pro Asp
 355 360 365
 Val Ser Asp Asn Glu Pro Asp His Tyr Arg Tyr Ser Asp Thr Thr Asp
 370 375 380
 Ser Asp Pro Glu Asn Glu Pro Phe Asp Glu Asp Gln His Thr Gln Ile
 385 390 395 400
 Thr Lys Val

<210> 30
 <211> 447
 <212> PRT
 <213> Homo sapiens

<400> 30
 Met Arg Ser Ser Thr Leu Gln Asp Pro Arg Arg Arg Asp Pro Gln Asp
 1 5 10 15
 Asp Val Tyr Val Asp Ile Thr Asp Arg Leu Arg Phe Ala Ile Leu Tyr
 20 25 30
 Ser Arg Pro Lys Ser Ala Ser Asn Val His Tyr Phe Ser Ile Asp Asn
 35 40 45
 Glu Leu Glu Tyr Glu Asn Phe Ser Glu Asp Phe Gly Pro Leu Asn Leu
 50 55 60
 Ala Met Val Tyr Arg Tyr Cys Cys Lys Ile Asn Lys Lys Leu Lys Ser
 65 70 75 80
 Ile Thr Met Leu Arg Lys Lys Ile Val His Phe Thr Gly Ser Asp Gln
 85 90 95
 Arg Lys Gln Ala Asn Ala Ala Phe Leu Val Gly Cys Tyr Met Val Ile
 100 105 110
 Tyr Leu Gly Arg Thr Pro Glu Ala Ala Tyr Arg Ile Leu Ile Phe Gly
 115 120 125
 Asp Thr Pro Tyr Ile Pro Phe Arg Asp Ala Ala Tyr Gly Ser Cys Asn
 130 135 140
 Phe Tyr Ile Thr Leu Leu Asp Cys Phe His Ala Val Lys Lys Ala Met
 145 150 155 160
 Gln Tyr Gly Phe Leu Asn Phe Asn Ser Phe Asn Leu Asp Glu Tyr Glu
 165 170 175
 His Tyr Glu Lys Ala Glu Asn Gly Asp Leu Asn Trp Ile Ile Pro Asp
 180 185 190
 Arg Phe Ile Ala Phe Cys Gly Pro His Ser Arg Ala Arg Leu Glu Ser
 195 200 205
 Gly Tyr His Gln His Ser Pro Glu Thr Tyr Ile Gln Tyr Phe Lys Asn
 210 215 220
 His Asn Val Thr Thr Ile Arg Leu Asn Lys Arg Met Tyr Asp Ala
 225 230 235 240
 Lys Arg Phe Thr Asp Ala Gly Phe Asp His His Asp Leu Phe Phe Ala
 245 250 255
 Asp Gly Ser Thr Pro Thr Asp Ala Ile Val Lys Arg Phe Leu Asp Ile
 260 265 270
 Cys Glu Asn Ala Glu Gly Ala Ile Ala Val His Cys Lys Ala Gly Leu
 275 280 285
 Gly Arg Thr Gly Thr Leu Ile Ala Cys Tyr Ile Met Lys His Tyr Arg
 290 295 300
 Met Thr Ala Ala Glu Thr Ile Ala Trp Val Arg Ile Cys Arg Pro Gly
 305 310 315 320
 Leu Val Ile Gly Pro Gln Gln Gln Phe Leu Val Met Lys Gln Thr Ser
 325 330 335
 Leu Trp Leu Glu Gly Asp Tyr Phe Arg Gln Arg Leu Lys Gly Gln Glu
 340 345 350
 Asn Gly Gln His Arg Ala Ala Phe Ser Lys Leu Leu Ser Gly Val Asp
 355 360 365
 Asp Ile Ser Ile Asn Gly Val Glu Asn Gln Asp Gln Gln Glu Pro Lys
 370 375 380
 Pro Tyr Ser Asp Asp Asp Glu Ile Asn Gly Val Thr Gln Gly Asp Arg

```

385          390          395          400
Ser Arg Ala Leu Lys Arg Arg Arg Gln Ser Lys Thr Asn Asp Ile Leu
          405          410          415
Leu Pro Ser Pro Leu Ala Val Leu Thr Phe Thr Leu Cys Ser Val Val
          420          425          430
Ile Trp Trp Ile Val Cys Asp Tyr Ile Leu Pro Ile Leu Leu Phe
          435          440          445

```

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<210> 31
<211> 340
<212> PRT
<213> Homo sapiens

```

```

<400> 31
Met Leu Glu Ala Pro Gly Pro Ser Asp Gly Cys Glu Leu Ser Asn Pro
 1          5          10          15
Ser Ala Ser Arg Val Ser Cys Ala Gly Gln Met Leu Glu Val Gln Pro
          20          25          30
Gly Leu Tyr Phe Gly Gly Ala Ala Ala Val Ala Glu Pro Asp His Leu
          35          40          45
Arg Glu Ala Gly Ile Thr Ala Val Leu Thr Val Asp Ser Glu Glu Pro
          50          55          60
Ser Phe Lys Ala Gly Pro Gly Val Glu Asp Leu Trp Arg Leu Phe Val
          65          70          75          80
Pro Ala Leu Asp Lys Pro Glu Thr Asp Leu Leu Ser His Leu Asp Arg
          85          90          95
Cys Val Ala Phe Ile Gly Gln Ala Arg Ala Glu Gly Arg Ala Val Leu
          100          105          110
Val His Cys His Ala Gly Val Ser Arg Ser Val Ala Ile Ile Thr Ala
          115          120          125
Phe Leu Met Lys Thr Asp Gln Leu Pro Phe Glu Lys Ala Tyr Glu Lys
          130          135          140
Leu Gln Ile Leu Lys Pro Glu Ala Lys Met Asn Glu Gly Phe Glu Trp
          145          150          155          160
Gln Leu Lys Leu Tyr Gln Ala Met Gly Tyr Glu Val Asp Thr Ser Ser
          165          170          175
Ala Ile Tyr Lys Gln Tyr Arg Leu Gln Lys Val Thr Glu Lys Tyr Pro
          180          185          190
Glu Leu Gln Asn Leu Pro Gln Glu Leu Phe Ala Val Asp Pro Thr Thr
          195          200          205
Val Ser Gln Gly Leu Lys Asp Glu Val Leu Tyr Lys Cys Arg Lys Cys
          210          215          220
Arg Arg Ser Leu Phe Arg Ser Ser Ser Ile Leu Asp His Arg Glu Gly
          225          230          235          240
Ser Gly Pro Ile Ala Phe Ala His Lys Arg Met Thr Pro Ser Ser Met
          245          250          255
Leu Thr Thr Gly Arg Gln Ala Gln Cys Thr Ser Tyr Phe Ile Glu Pro
          260          265          270
Val Gln Trp Met Glu Ser Ala Leu Leu Gly Val Met Asp Gly Gln Leu
          275          280          285
Leu Cys Pro Lys Cys Ser Ala Lys Leu Gly Ser Phe Asn Trp Tyr Gly
          290          295          300
Glu Gln Cys Ser Cys Gly Arg Trp Ile Thr Pro Ala Phe Gln Ile His
          305          310          315          320
Lys Asn Arg Val Asp Glu Met Lys Ile Leu Pro Val Leu Gly Ser Gln
          325          330          335
Thr Gly Lys Ile

```

340

<210> 32
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 32
 Met Gly Val Gln Pro Pro Asn Phe Ser Trp Val Leu Pro Gly Arg Leu
 1 5 10 15
 Ala Gly Leu Ala Leu Pro Arg Leu Pro Ala His Tyr Gln Phe Leu Leu
 20 25 30
 Asp Leu Gly Val Arg His Leu Val Ser Leu Thr Glu Arg Gly Pro Pro
 35 40 45
 His Ser Asp Ser Cys Pro Gly Leu Thr Leu His Arg Leu Arg Ile Pro
 50 55 60
 Asp Phe Cys Pro Pro Ala Pro Asp Gln Ile Asp Arg Phe Val Gln Ile
 65 70 75 80
 Val Asp Glu Ala Asn Ala Arg Gly Glu Ala Val Gly Val His Cys Ala
 85 90 95
 Leu Gly Phe Gly Arg Thr Gly Thr Met Leu Ala Cys Tyr Leu Val Lys
 100 105 110
 Glu Arg Gly Leu Ala Ala Gly Asp Ala Ile Ala Glu Ile Arg Arg Leu
 115 120 125
 Arg Pro Gly Pro Ile Glu Thr Tyr Glu Gln Glu Lys Ala Val Phe Gln
 130 135 140
 Phe Tyr Gln Arg Thr Lys
 145 150

<210> 33
 <211> 322
 <212> PRT
 <213> Homo sapiens

<400> 33
 Gly Leu Met Leu Arg Arg Leu Arg Lys Gly Asn Leu Pro Ile Arg Ser
 1 5 10 15
 Ile Ile Pro Asn His Ala Asp Lys Glu Arg Phe Ala Thr Arg Cys Lys
 20 25 30
 Ala Ala Thr Val Leu Leu Tyr Asp Glu Ala Thr Ala Glu Trp Gln Pro
 35 40 45
 Glu Pro Gly Ala Pro Ala Ser Val Leu Gly Leu Leu Leu Gln Lys Leu
 50 55 60
 Arg Asp Asp Gly Cys Gln Ala Tyr Tyr Leu Gln Gly Gly Phe Asn Lys
 65 70 75 80
 Phe Gln Thr Glu Tyr Ser Glu His Cys Glu Thr Asn Val Asp Ser Ser
 85 90 95
 Ser Ser Pro Ser Ser Ser Pro Pro Thr Ser Val Leu Gly Leu Gly Gly
 100 105 110
 Leu Arg Ile Ser Ser Asp Cys Ser Asp Gly Glu Ser Asp Arg Glu Leu
 115 120 125
 Pro Ser Ser Ala Thr Glu Ser Asp Gly Ser Pro Val Pro Ser Ser Gln
 130 135 140
 Pro Ala Phe Pro Val Gln Ile Leu Pro Tyr Leu Tyr Leu Gly Cys Ala
 145 150 155 160
 Lys Asp Ser Thr Asn Leu Asp Val Leu Gly Lys Tyr Gly Ile Lys Tyr
 165 170 175

```

Ile Leu Asn Val Thr Pro Asn Leu Pro Asn Ala Phe Glu His Gly Gly
      180                      185                      190
Glu Phe Thr Tyr Lys Gln Ile Pro Ile Ser Asp His Trp Ser Gln Asn
      195                      200                      205
Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser Phe Ile Asp Glu Ala Arg
      210                      215                      220
Ser Lys Lys Cys Gly Val Leu Val His Cys Leu Ala Gly Ile Ser Arg
      225                      230                      235                      240
Ser Val Thr Val Thr Val Ala Tyr Leu Met Gln Lys Met Asn Leu Ser
      245                      250                      255
Leu Asn Asp Ala Tyr Asp Phe Val Lys Arg Lys Lys Ser Asn Ile Ser
      260                      265                      270
Pro Asn Phe Asn Phe Met Gly Gln Leu Leu Asp Phe Glu Arg Thr Leu
      275                      280                      285
Gly Leu Ser Ser Pro Cys Asp Asn His Ala Ser Ser Glu Gln Leu Tyr
      290                      295                      300
Phe Ser Thr Pro Thr Asn His Asn Leu Phe Pro Leu Asn Thr Leu Glu
      305                      310                      315                      320
Ser Thr

```

<210> 34

<211> 521

<212> PRT

<213> Homo sapiens

<400> 34

```

Met Ser Glu Pro Lys Ala Ile Asp Pro Lys Leu Ser Thr Thr Asp Arg
  1      5      10      15
Val Val Lys Ala Val Pro Phe Pro Pro Ser His Arg Leu Thr Ala Lys
      20      25      30
Glu Val Phe Asp Asn Asp Gly Lys Pro Arg Val Asp Ile Leu Lys Ala
      35      40      45
His Leu Met Lys Glu Gly Arg Leu Glu Glu Ser Val Ala Leu Arg Ile
      50      55      60
Ile Thr Glu Gly Ala Ser Ile Leu Arg Gln Glu Lys Asn Leu Leu Asp
      65      70      75      80
Ile Asp Ala Pro Val Thr Val Cys Gly Asp Ile His Gly Gln Phe Phe
      85      90      95
Asp Leu Met Lys Leu Phe Glu Val Gly Gly Ser Pro Ala Asn Thr Arg
      100      105      110
Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg Gly Tyr Phe Ser Ile Glu
      115      120      125
Cys Val Leu Tyr Leu Trp Ala Leu Lys Ile Leu Tyr Pro Lys Thr Leu
      130      135      140
Phe Leu Leu Arg Gly Asn His Glu Cys Arg His Leu Thr Glu Tyr Phe
      145      150      155      160
Thr Phe Lys Gln Glu Cys Lys Ile Lys Tyr Ser Glu Arg Val Tyr Asp
      165      170      175
Ala Cys Met Asp Ala Phe Asp Cys Leu Pro Leu Ala Ala Leu Met Asn
      180      185      190
Gln Gln Phe Leu Cys Val His Gly Gly Leu Ser Pro Glu Ile Asn Thr
      195      200      205
Leu Asp Asp Ile Arg Lys Leu Asp Arg Phe Lys Glu Pro Pro Ala Tyr
      210      215      220
Gly Pro Met Cys Asp Ile Leu Trp Ser Asp Pro Leu Glu Asp Phe Gly
      225      230      235      240

```



```

Asn Glu Lys Thr Gln Glu His Phe Thr His Asn Thr Val Arg Gly Cys
      245                      250          255
Ser Tyr Phe Tyr Ser Tyr Pro Ala Val Cys Glu Phe Leu Gln His Asn
      260                      265          270
Asn Leu Leu Ser Ile Leu Arg Ala His Glu Ala Gln Asp Ala Gly Tyr
      275                      280          285
Arg Met Tyr Arg Lys Ser Gln Thr Thr Gly Phe Pro Ser Leu Ile Thr
      290                      295          300
Ile Phe Ser Ala Pro Asn Tyr Leu Asp Val Tyr Asn Asn Lys Ala Ala
305                      310          315          320
Val Leu Lys Tyr Glu Asn Asn Val Met Asn Ile Arg Gln Phe Asn Cys
      325                      330          335
Ser Pro His Pro Tyr Trp Leu Pro Asn Phe Met Asp Val Phe Thr Trp
      340                      345          350
Ser Leu Pro Phe Val Gly Glu Lys Val Thr Glu Met Leu Val Asn Val
      355                      360          365
Leu Asn Ile Cys Ser Asp Asp Glu Leu Gly Ser Glu Glu Asp Gly Phe
      370                      375          380
Asp Gly Ala Thr Ala Ala Ala Arg Lys Glu Val Ile Arg Asn Lys Ile
385                      390          395          400
Arg Ala Ile Gly Lys Met Ala Arg Val Phe Ser Val Leu Arg Glu Glu
      405                      410          415
Ser Glu Ser Val Leu Thr Leu Lys Gly Leu Thr Pro Thr Gly Met Leu
      420                      425          430
Pro Ser Gly Val Leu Ser Gly Gly Lys Gln Thr Leu Gln Ser Ala Thr
      435                      440          445
Val Glu Ala Ile Glu Ala Asp Glu Ala Ile Lys Gly Phe Ser Pro Gln
      450                      455          460
His Lys Ile Thr Ser Phe Glu Glu Ala Lys Gly Leu Asp Arg Ile Asn
465                      470          475          480
Glu Arg Met Pro Pro Arg Arg Asp Ala Met Pro Ser Asp Ala Asn Leu
      485                      490          495
Asn Ser Ile Asn Lys Ala Leu Thr Ser Glu Thr Asn Gly Thr Asp Ser
      500                      505          510
Asn Gly Ser Asn Ser Ser Asn Ile Gln
      515                      520

```

<210> 35

<211> 1267

<212> PRT

<213> Homo sapiens

<400> 35

```

Asp Leu Ser Arg Ser His Cys His Val Tyr Leu Ala His Leu Glu Asn
  1                      5                      10          15
Ser Phe Gly Pro Ser Gly Ala Arg Glu Gly Ser Leu Ser Ser Gln Asp
      20                      25          30
Ser Arg Thr Glu Ser Ala Ser Leu Ser Gln Ser Gln Val Asn Gly Phe
      35                      40          45
Phe Ala Ser His Leu Gly Asp Gln Thr Trp Gln Glu Ser Gln His Gly
      50                      55          60
Ser Pro Ser Pro Ser Val Ile Ser Lys Ala Thr Glu Lys Glu Thr Phe
      65                      70          75          80
Thr Asp Ser Asn Gln Ser Lys Thr Lys Lys Pro Gly Ile Ser Asp Val
      85                      90          95
Thr Asp Tyr Ser Asp Arg Gly Asp Ser Asp Met Asp Glu Ala Thr Tyr
      100                      105          110

```

Ser	Ser	Ser	Gln	Asp	His	Gln	Thr	Pro	Lys	Gln	Glu	Ser	Ser	Ser	Ser
		115					120					125			
Val	Asn	Thr	Ser	Asn	Lys	Met	Asn	Phe	Lys	Thr	Phe	Pro	Ser	Ser	Pro
	130					135					140				
Pro	Arg	Ser	Gly	Asp	Ile	Phe	Glu	Val	Glu	Leu	Ala	Lys	Asn	Asp	Asn
145					150					155					160
Ser	Leu	Gly	Ile	Ser	Val	Thr	Gly	Gly	Val	Asn	Thr	Ser	Val	Arg	His
				165					170					175	
Gly	Gly	Ile	Tyr	Val	Lys	Ala	Val	Ile	Pro	Gln	Gly	Ala	Ala	Glu	Ser
		180						185					190		
Asp	Gly	Arg	Ile	His	Lys	Gly	Asp	Arg	Val	Leu	Ala	Val	Asn	Gly	Val
	195					200						205			
Ser	Leu	Glu	Gly	Ala	Thr	His	Lys	Gln	Ala	Val	Glu	Thr	Leu	Arg	Asn
	210					215					220				
Thr	Gly	Gln	Val	Val	His	Leu	Leu	Leu	Glu	Lys	Gly	Gln	Ser	Pro	Thr
225					230					235					240
Ser	Lys	Glu	His	Val	Pro	Val	Thr	Pro	Gln	Cys	Thr	Leu	Ser	Asp	Gln
				245					250					255	
Asn	Ala	Gln	Gly	Gln	Gly	Pro	Glu	Lys	Val	Lys	Lys	Thr	Thr	Gln	Val
		260						265					270		
Lys	Asp	Tyr	Ser	Phe	Val	Thr	Glu	Glu	Asn	Thr	Phe	Glu	Val	Lys	Leu
	275						280					285			
Phe	Lys	Asn	Ser	Ser	Gly	Leu	Gly	Phe	Ser	Phe	Ser	Arg	Glu	Asp	Asn
	290					295					300				
Leu	Ile	Pro	Glu	Gln	Ile	Asn	Ala	Ser	Ile	Val	Arg	Val	Lys	Lys	Leu
305					310					315					320
Phe	Pro	Gly	Gln	Pro	Ala	Ala	Glu	Ser	Gly	Lys	Ile	Asp	Val	Gly	Asp
				325					330					335	
Val	Ile	Leu	Lys	Val	Asn	Gly	Ala	Ser	Leu	Lys	Gly	Leu	Ser	Gln	Gln
		340						345					350		
Glu	Val	Ile	Ser	Ala	Leu	Arg	Gly	Thr	Ala	Pro	Glu	Val	Phe	Leu	Leu
	355						360					365			
Leu	Cys	Arg	Pro	Pro	Pro	Gly	Val	Leu	Pro	Glu	Ile	Asp	Thr	Ala	Leu
	370					375					380				
Leu	Thr	Pro	Leu	Gln	Ser	Pro	Ala	Gln	Val	Leu	Pro	Asn	Ser	Ser	Lys
385					390					395					400
Asp	Ser	Ser	Gln	Pro	Ser	Cys	Val	Glu	Gln	Ser	Thr	Ser	Ser	Asp	Glu
				405					410					415	
Asn	Glu	Met	Ser	Asp	Lys	Ser	Lys	Lys	Gln	Cys	Lys	Ser	Pro	Ser	Arg
		420						425					430		
Lys	Asp	Ser	Tyr	Ser	Asp	Ser	Ser	Gly	Ser	Gly	Glu	Asp	Asp	Leu	Val
	435						440					445			
Thr	Ala	Pro	Ala	Asn	Ile	Ser	Asn	Ser	Thr	Trp	Ser	Ser	Ala	Leu	His
	450					455					460				
Gln	Thr	Leu	Ser	Asn	Met	Val	Ser	Gln	Ala	Gln	Ser	His	His	Glu	Ala
465					470					475					480
Pro	Arg	Val	Lys	Lys	Ile	Pro	Phe	Val	Pro	Cys	Phe	Thr	Ile	Leu	Arg
				485					490					495	
Lys	Arg	Pro	Asn	Lys	Pro	Glu	Phe	Glu	Asp	Ser	Asn	Pro	Ser	Pro	Leu
		500						505					510		
Pro	Pro	Asp	Met	Ala	Pro	Gly	Gln	Ser	Tyr	Gln	Pro	Gln	Ser	Glu	Ser
	515					520						525			
Ala	Ser	Ser	Ser	Ser	Met	Asp	Lys	Tyr	His	Ile	His	His	Ile	Ser	Glu
	530					535					540				
Pro	Thr	Arg	Gln	Glu	Asn	Trp	Thr	Pro	Leu	Lys	Asn	Asp	Leu	Glu	Asn
545					550					555					560
His	Leu	Glu	Asp	Phe	Glu	Leu	Glu	Val	Glu	Leu	Leu	Ile	Thr	Leu	Ile

				565							570							575		
Lys	Ser	Glu	Lys	Gly	Ser	Leu	Gly	Phe	Thr	Val	Thr	Lys	Gly	Asn	Gln					
			580					585					590							
Arg	Ile	Gly	Cys	Tyr	Val	His	Asp	Val	Ile	Gln	Asp	Pro	Ala	Lys	Ser					
		595					600					605								
Asp	Gly	Arg	Leu	Lys	Pro	Gly	Asp	Arg	Leu	Ile	Lys	Val	Asn	Asp	Thr					
	610					615					620									
Asp	Val	Thr	Asn	Met	Thr	His	Thr	Asp	Ala	Val	Asn	Leu	Leu	Arg	Gly					
625					630					635					640					
Ser	Lys	Thr	Val	Arg	Leu	Val	Ile	Gly	Arg	Val	Leu	Glu	Leu	Pro	Arg					
				645				650						655						
Ile	Pro	Met	Leu	Pro	His	Leu	Leu	Pro	Asp	Ile	Thr	Leu	Thr	Cys	Asn					
		660						665					670							
Lys	Glu	Glu	Leu	Gly	Phe	Ser	Leu	Cys	Gly	Gly	His	Asp	Ser	Leu	Tyr					
		675					680					685								
Gln	Val	Val	Tyr	Ile	Ser	Asp	Ile	Asn	Pro	Arg	Ser	Val	Ala	Ala	Ile					
	690					695					700									
Glu	Gly	Asn	Leu	Gln	Leu	Asp	Val	Ile	His	Tyr	Val	Asn	Gly	Val						
705				710					715						720					
Ser	Thr	Gln	Gly	Met	Thr	Leu	Glu	Glu	Val	Asn	Arg	Ala	Leu	Asp	Met					
				725				730						735						
Ser	Leu	Pro	Ser	Leu	Val	Leu	Lys	Ala	Thr	Arg	Asn	Asp	Leu	Pro	Val					
			740					745					750							
Val	Pro	Ser	Ser	Lys	Arg	Ser	Ala	Val	Ser	Ala	Pro	Lys	Ser	Thr	Lys					
		755					760					765								
Gly	Asn	Gly	Ser	Tyr	Ser	Val	Gly	Ser	Cys	Ser	Gln	Pro	Ala	Leu	Thr					
	770					775					780									
Pro	Asn	Asp	Ser	Phe	Ser	Thr	Val	Ala	Gly	Glu	Glu	Ile	Asn	Glu	Ile					
785				790						795				800						
Ser	Tyr	Pro	Lys	Gly	Lys	Cys	Ser	Thr	Tyr	Gln	Ile	Lys	Gly	Ser	Pro					
				805				810					815							
Asn	Leu	Thr	Leu	Pro	Lys	Glu	Ser	Tyr	Ile	Gln	Glu	Asp	Asp	Ile	Tyr					
			820					825					830							
Asp	Asp	Ser	Gln	Glu	Ala	Glu	Val	Ile	Gln	Ser	Leu	Leu	Asp	Val	Val					
		835					840					845								
Asp	Glu	Glu	Ser	Gln	Asn	Leu	Leu	Asn	Glu	Asn	Asn	Ala	Ala	Gly	Tyr					
	850					855					860									
Ser	Cys	Gly	Pro	Gly	Thr	Leu	Lys	Met	Asn	Gly	Lys	Leu	Ser	Glu	Glu					

Tyr Lys Asn Ile Leu Pro Tyr Asp Ala Thr Arg Val Pro Leu Gly Asp
 1025 1030 1035 1040
 Glu Gly Gly Tyr Ile Asn Ala Ser Phe Ile Lys Ile Pro Val Gly Lys
 1045 1050 1055
 Glu Glu Phe Val Tyr Ile Ala Cys Gln Gly Pro Leu Pro Thr Thr Val
 1060 1065 1070
 Gly Asp Phe Trp Gln Met Ile Trp Glu Gln Lys Ser Thr Val Ile Ala
 1075 1080 1085
 Met Met Thr Gln Glu Val Glu Gly Glu Lys Ile Lys Cys Gln Arg Tyr
 1090 1095 1100
 Trp Pro Asn Ile Leu Gly Lys Thr Thr Met Val Ser Asn Arg Leu Arg
 1105 1110 1115 1120
 Leu Ala Leu Val Arg Met Gln Gln Leu Lys Gly Phe Val Val Arg Ala
 1125 1130 1135
 Met Thr Leu Glu Asp Ile Gln Thr Arg Glu Val Arg His Ile Ser His
 1140 1145 1150
 Leu Asn Phe Thr Ala Trp Pro Asp His Asp Thr Pro Ser Gln Pro Asp
 1155 1160 1165
 Asp Leu Leu Thr Phe Ile Ser Tyr Met Arg His Ile His Arg Ser Gly
 1170 1175 1180
 Pro Ile Ile Thr His Cys Ser Ala Gly Ile Gly Arg Ser Gly Thr Leu
 1185 1190 1195 1200
 Ile Cys Ile Asp Val Val Leu Gly Leu Ile Ser Gln Asp Leu Asp Phe
 1205 1210 1215
 Asp Ile Ser Asp Leu Val Arg Cys Met Arg Leu Gln Arg His Gly Met
 1220 1225 1230
 Val Gln Thr Glu Asp Gln Tyr Ile Phe Cys Tyr Gln Val Ile Leu Tyr
 1235 1240 1245
 Val Leu Thr Arg Leu Gln Ala Glu Glu Glu Gln Lys Gln Gln Pro Gln
 1250 1255 1260
 Leu Leu Lys
 1265

<210> 36
 <211> 551
 <212> PRT
 <213> Homo sapiens

<400> 36
 Met Asn Glu Ser Pro Asp Pro Thr Asp Leu Ala Gly Val Ile Ile Glu
 1 5 10 15
 Leu Gly Pro Asn Asp Ser Pro Gln Thr Ser Glu Phe Lys Gly Ala Thr
 20 25 30
 Glu Glu Ala Pro Ala Lys Glu Ser Pro His Thr Ser Glu Phe Lys Gly
 35 40 45
 Ala Ala Arg Val Ser Pro Ile Ser Glu Ser Val Leu Ala Arg Leu Ser
 50 55 60
 Lys Phe Glu Val Glu Asp Ala Glu Asn Val Ala Ser Tyr Asp Ser Lys
 65 70 75 80
 Ile Lys Lys Ile Val His Ser Ile Val Ser Ser Phe Ala Phe Gly Leu
 85 90 95
 Phe Gly Val Phe Leu Val Leu Leu Asp Val Thr Leu Ile Leu Ala Asp
 100 105 110
 Leu Ile Phe Thr Asp Ser Lys Leu Tyr Ile Pro Leu Glu Tyr Arg Ser
 115 120 125
 Ile Ser Leu Ala Ile Ala Leu Phe Phe Leu Met Asp Val Leu Leu Arg
 130 135 140

Val	Phe	Val	Glu	Arg	Arg	Gln	Gln	Tyr	Phe	Ser	Asp	Leu	Phe	Asn	Ile
145					150				155					160	
Leu	Asp	Thr	Ala	Ile	Ile	Val	Ile	Leu	Leu	Leu	Val	Asp	Val	Val	Tyr
			165					170					175		
Ile	Phe	Phe	Asp	Ile	Lys	Leu	Leu	Arg	Asn	Ile	Pro	Arg	Trp	Thr	His
			180					185					190		
Leu	Leu	Arg	Leu	Leu	Arg	Leu	Ile	Leu	Leu	Arg	Ile	Phe	His	Leu	
		195				200					205				
Phe	His	Gln	Lys	Arg	Gln	Leu	Glu	Lys	Leu	Ile	Arg	Arg	Arg	Val	Ser
	210					215					220				
Glu	Asn	Lys	Arg	Arg	Tyr	Thr	Arg	Asp	Gly	Phe	Asp	Leu	Asp	Leu	Thr
225					230					235					240
Tyr	Val	Thr	Glu	Arg	Ile	Ile	Ala	Met	Ser	Phe	Pro	Ser	Ser	Gly	Arg
			245					250						255	
Gln	Ser	Phe	Tyr	Arg	Asn	Pro	Ile	Lys	Glu	Val	Val	Arg	Phe	Leu	Asp
			260					265					270		
Lys	Lys	His	Arg	Asn	His	Tyr	Arg	Val	Tyr	Asn	Leu	Cys	Ser	Glu	Arg
		275				280					285				
Ala	Tyr	Asp	Pro	Lys	His	Phe	His	Asn	Arg	Val	Val	Arg	Ile	Met	Ile
	290					295					300				
Asp	Asp	His	Asn	Val	Pro	Thr	Leu	His	Gln	Met	Val	Val	Phe	Thr	Lys
305					310					315					320
Glu	Val	Asn	Glu	Trp	Met	Ala	Gln	Asp	Leu	Glu	Asn	Ile	Val	Ala	Ile
			325					330						335	
His	Cys	Lys	Gly	Thr	Asp	Arg	Thr	Gly	Thr	Met	Val	Cys	Ala	Phe	
			340				345					350			
Leu	Ile	Ala	Ser	Glu	Ile	Cys	Ser	Thr	Ala	Lys	Glu	Ser	Leu	Tyr	Tyr
		355					360					365			
Phe	Gly	Glu	Arg	Arg	Thr	Asp	Lys	Thr	His	Ser	Glu	Lys	Phe	Gln	Gly
	370				375						380				
Val	Glu	Thr	Pro	Ser	Gln	Lys	Arg	Tyr	Val	Ala	Tyr	Phe	Ala	Gln	Val
385					390					395					400
Lys	His	Leu	Tyr	Asn	Trp	Asn	Leu	Pro	Pro	Arg	Arg	Ile	Leu	Phe	Ile
			405					410					415		
Lys	His	Phe	Ile	Ile	Tyr	Ser	Ile	Pro	Arg	Tyr	Val	Arg	Asp	Leu	Lys
		420						425					430		
Ile	Gln	Ile	Glu	Met	Glu	Lys	Lys	Val	Val	Phe	Ser	Thr	Ile	Ser	Leu
		435					440					445			
Gly	Lys	Cys	Ser	Val	Leu	Asp	Asn	Ile	Thr	Thr	Asp	Lys	Ile	Leu	Ile
	450					455					460				
Asp	Val	Phe	Asp	Gly	Pro	Pro	Leu	Tyr	Asp	Asp	Val	Lys	Val	Gln	Phe
465					470					475					480
Phe	Tyr	Ser	Asn	Leu	Pro	Thr	Tyr	Tyr	Asp	Asn	Cys	Ser	Phe	Tyr	Phe
			485					490						495	
Trp	Leu	His	Thr	Ser	Phe	Ile	Glu	Asn	Asn	Arg	Leu	Tyr	Leu	Pro	Lys
			500					505					510		
Asn	Glu	Leu	Asp	Asn	Leu	His	Lys	Gln	Lys	Ala	Arg	Arg	Ile	Tyr	Pro
		515					520					525			
Ser	Asp	Phe	Ala	Val	Glu	Ile	Leu	Phe	Gly	Glu	Lys	Met	Thr	Ser	Ser
	530					535					540				
Asp	Val	Val	Ala	Gly	Ser	Asp									
545					550										

<210> 37

<211> 323

<212> PRT

<213> Homo sapiens

<400> 37

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Met Ala Asp Leu Asp Lys Leu Asn Ile Asp Ser Ile Ile Gln Arg Leu
 1          5          10          15
Leu Glu Val Arg Gly Ser Lys Pro Gly Lys Asn Val Gln Leu Gln Glu
          20          25          30
Asn Glu Ile Arg Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser
          35          40          45
Gln Pro Ile Leu Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp
          50          55          60
Ile His Gly Gln Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly
          65          70          75          80
Phe Pro Pro Glu Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg
          85          90          95
Gly Lys Gln Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile
          100          105          110
Lys Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala
          115          120          125
Ser Ile Asn Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr
          130          135          140
Asn Ile Lys Leu Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro
          145          150          155          160
Ile Ala Ala Ile Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu
          165          170          175
Ser Pro Asp Leu Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro
          180          185          190
Thr Asp Val Pro Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp
          195          200          205
Pro Asp Lys Asp Val Leu Gly Trp Gly Glu Asn Asp Arg Gly Val Ser
          210          215          220
Phe Thr Phe Gly Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp
          225          230          235          240
Leu Asp Leu Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu
          245          250          255
Phe Phe Ala Lys Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr
          260          265          270
Cys Gly Glu Phe Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr
          275          280          285
Leu Met Cys Ser Phe Gln Ile Leu Lys Pro Ala Glu Lys Lys Lys Pro
          290          295          300
Asn Ala Thr Arg Pro Val Thr Pro Pro Arg Gly Met Ile Thr Lys Gln
          305          310          315          320
Ala Lys Lys

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<210> 38

<211> 319

<212> PRT

<213> Homo sapiens

<400> 38

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Asp Lys Leu Asn Ile Asp Ser Ile Ile Gln Arg Leu Leu Glu Val Arg
 1          5          10          15
Gly Ser Lys Pro Gly Lys Asn Val Gln Leu Gln Glu Asn Glu Ile Arg
          20          25          30
Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser Gln Pro Ile Leu
          35          40          45

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Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp Ile His Gly Gln
  50                      55                      60
Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly Phe Pro Pro Glu
  65                      70                      75                      80
Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg Gly Lys Gln Ser
                      85                      90                      95
Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile Lys Tyr Pro Glu
          100                      105                      110
Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala Ser Ile Asn Arg
          115                      120                      125
Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr Asn Ile Lys Leu
          130                      135                      140
Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro Ile Ala Ala Ile
          145                      150                      155                      160
Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu Ser Pro Asp Leu
          165                      170                      175
Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro Thr Asp Val Pro
          180                      185                      190
Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp Pro Asp Lys Asp
          195                      200                      205
Val Leu Gly Trp Gly Glu Asn Asp Arg Gly Val Ser Phe Thr Phe Gly
          210                      215                      220
Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp Leu Asp Leu Ile
          225                      230                      235                      240
Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu Phe Phe Ala Lys
          245                      250                      255
Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr Cys Gly Glu Phe
          260                      265                      270
Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr Leu Met Cys Ser
          275                      280                      285
Phe Gln Ile Leu Lys Pro Ala Glu Lys Lys Lys Pro Asn Ala Thr Arg
          290                      295                      300
Pro Val Thr Pro Pro Arg Gly Met Ile Thr Lys Gln Ala Lys Lys
          305                      310                      315

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<210> 39

<211> 309

<212> PRT

<213> Homo sapiens

<400> 39

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Met Asp Glu Lys Val Phe Thr Lys Glu Leu Asp Gln Trp Ile Glu Gln
  1                      5                      10                      15
Leu Asn Glu Cys Lys Gln Leu Ser Glu Ser Gln Val Lys Ser Leu Cys
          20                      25                      30
Glu Lys Ala Lys Glu Ile Leu Thr Lys Glu Ser Asn Val Gln Glu Val
          35                      40                      45
Arg Cys Pro Val Thr Val Cys Gly Asp Val His Gly Gln Phe His Asp
          50                      55                      60
Leu Met Glu Leu Phe Arg Ile Gly Gly Lys Ser Pro Asp Thr Asn Tyr
          65                      70                      75                      80
Leu Phe Met Gly Asp Tyr Val Asp Arg Gly Tyr Tyr Ser Val Glu Thr
          85                      90                      95
Val Thr Leu Leu Val Ala Leu Lys Val Arg Tyr Arg Glu Arg Ile Thr
          100                      105                      110
Ile Leu Arg Gly Asn His Glu Ser Arg Gln Ile Thr Gln Val Tyr Gly
          115                      120                      125

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Phe Tyr Asp Glu Cys Leu Arg Lys Tyr Gly Asn Ala Asn Val Trp Lys
 130 135 140
 Tyr Phe Thr Asp Leu Phe Asp Tyr Leu Pro Leu Thr Ala Leu Val Asp
 145 150 155 160
 Gly Gln Ile Phe Cys Leu His Gly Gly Leu Ser Pro Ser Ile Asp Thr
 165 170 175
 Leu Asp His Ile Arg Ala Leu Asp Arg Leu Gln Glu Val Pro His Glu
 180 185 190
 Gly Pro Met Cys Asp Leu Leu Trp Ser Asp Pro Asp Asp Arg Gly Gly
 195 200 205
 Trp Gly Ile Ser Pro Arg Gly Ala Gly Tyr Thr Phe Gly Gln Asp Ile
 210 215 220
 Ser Glu Thr Phe Asn His Ala Asn Gly Leu Thr Leu Val Ser Arg Ala
 225 230 235 240
 His Gln Leu Val Met Glu Gly Tyr Asn Trp Cys His Asp Arg Asn Val
 245 250 255
 Val Thr Ile Phe Ser Ala Pro Asn Tyr Cys Tyr Arg Cys Gly Asn Gln
 260 265 270
 Ala Ala Ile Met Glu Leu Asp Asp Thr Leu Lys Tyr Ser Phe Leu Gln
 275 280 285
 Phe Asp Pro Ala Pro Arg Arg Gly Glu Pro His Val Thr Arg Arg Thr
 290 295 300
 Pro Asp Tyr Phe Leu
 305

<210> 40

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificially Synthesized Primer Sequence

<400> 40

tacggaagtg ttacttctgc

20

<210> 41

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificially Synthesized Primer Sequence

<400> 41

tgtgggaggt tttttctcta

20

<210> 42

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificially Synthesized Primer Sequence

<400> 42

gttttcccag tcacgac

17

<210> 43
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially Synthesized Primer Sequence

<400> 43
caggaaacag ctatgac